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ABSTRACT

This report describes organic curriculum development, the redefinition of goals, and the overhaul of the educational process in the public schools of Quincy, Massachusetts. Superintendent of 15 school districts met in Florida in May 1967 to establish the initial network of the program entitled Educational System for the Seventies (ES '70). The first of three sections deals with accomplishments of project objectives, outlining steps taken to design a learner responsive school system. The second deals with efforts of the Quincy Public Schools in concert with other ES '70 systems. This includes activities outside the regular network meetings. The final section deals with recommendations for the next steps in order to produce a learner responsive school system. The cooperative development and dissemination scheduled to take place within the network structure has failed to a degree for the lack of a management system. A highly structured system was needed to generate specific procedures to produce replicability and applicability in other cooperating school systems. Appendixes include documentary evidence to support the text. (Related documents SP 005 657 and SP 005 658 are ES'70 developments in other schools.) (MJM)

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FINAL REPORT

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COORDINATION OF ORGANIC CURRICULUM DEVELOPMENT IN THE PUBLIC SCHOOLS OF QUINCY, MASSACHUSETTS

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QUINCY PUBLIC SCHOOLS
QUINCY, MASSACHUSETTS
Lawrence P. Creedon
Superintendent

May 1971

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SUMMARY

Those of us responsible for educating the youth of today have been searching for an approach to education to emerge which will prepare the nation's young people for their changing roles in a technological society. A cooperative effort was initiated, The Coordination of Organic Curriculum Development, in a network of school districts entitled ES'70 - An Educational System for the Seventies.

This report deals with the activities of the Quincy Public Schools, City of Quincy, Massachusetts, as a member of the ES'70 Network as it has operated within the scope of the original goals of the network in the following four categories:

A. Staff Development
B. Instructional Management and Career Guidance
C. School Management
D. Evaluation

The first section deals with accomplishments of Project Objectives. It outlines steps taken to design a Learner Responsive School System.

The second section deals with efforts of the Quincy Public Schools in concert with other ES'70 Network Systems. This covers activities outside the regular network meetings which have been documented in the member district quarterly reports.

The third and last section deals with recommendations for next steps in order to produce a Learner Responsive School System. As a result of the ES'70 efforts we need a vehicle to "put it all together", Superintendent of Schools, Dr. Lawrence P. Creedon (Vice President of the ES'70 Network 1970) envisions a major committment to enable a school district or districts such as the ES'70 Network be funded to continue to develop and implement new ventures in Individualized Learning Programs and at the same time the development and implementation of a Management Information System that not only will support and facilitate the educational program, but will meet all the requirements of reliability, predictability and accountability.

Quincy has recognized the need for involvement and operates on the premise that anyone who is to be affected by a decision ought to be involved in the process of making that decision. A vehicle for decision making must be evolved that is based upon participation in a team structure keyed to competence. (See Appendix #VI).

The appendices consist of documentary evidence which supports the preceeding three sections. This includes the following documents:

Systems Approach Chart
Learner-Centered Instructional Systems Chart
Individualized Learner Activity Process Chart
Decision Making Process
Curriculum Fliers
ES'70 Past and Prologue
Conduct of the Project

It might be timely to note, that the cooperative development and dissemination scheduled to have taken place within the network structure, has failed to a degree for the lack of a management system. A highly structured system was needed that would generate specific procedures to produce replicability and applicability in the other cooperating school systems.

INTRODUCTION

For many years teachers and administrators frequently and fervently have declared that "we take children where we find them and take them as far as we can". This exhortation has been based on their belief in providing for individual differences in children.

Few have ever actually accomplished this noble sentiment wih a class of pupils. Most teachers have felt that if they had a homogeneously grouped class, they were fulfilling the above maxim. Others who organized the class into three groups felt they had done their duty. However, the fact of the matter is that the basic truths of individual differences tell us that from the day of birth no two people have the same genes and certainly no two people have the same identical experiences. Thus, if we believe in fostering the growth of an individual and all his unique potential, we must focus with new eyes upon the problem of an individualized program of instruction for each child.

Stated in the terms of the Educational System for the Seventies: A Learner Responsive School System. The initial meeting of 15 school districts took place in May 1967 at Fort Lauderdale, Florida. This culminated a year of preliminary planning by the United States Office of Education. An Executive Committee was established to guide the planning, organizing and conduct the ES'70 Program. It was decided that each participating district would designate a coordinator to be assigned the task of directing the program within his district.

The ES'70 network school districts were charged with the task of developing a new comprehensive secondary school curriculum and organization. Each district would provide a learner-oriented rather than process or subject-matter oriented curriculum.

An "organic" curriculum as envisioned would utilize appropriate self-paced and self-instructional technology in order to accommodate individual differences. It should be designed so that each student will succeed and yet, it should be rigorous in level and content.

In general the 1967 initial design of this curriculum was as follows:

(1) Integrate academic and vocational learning by appropriately employing vocational preparation as one of the principal vehicles for the inculcation of basic learning skills. In this way learning could be made more palatable to many students who otherwise have

difficulty seeing the value of a general education.

(2) Expose the student to an understanding of the "real world" through a series of experiences which capitalize on the desire of youth to investigate for himself.

(3) Train the student in a score of generalizable skills related to a cluster of occupations rather than just those related to one specialized occupation.

(4) Orient students to the attitudes and habits which go with successful job performance and successful living.

(5) Provide a background for the prospective worker by helping him to understand how he fits within the academic and civic institutions of our country.

(6) Make students aware that learning is life-oriented and needdnot, indeed must not, stop with his exit from formal education.

(7) Help students cope with a changing world of work through developing career strategies which can lead to an adequate level of income and responsibility.

(8) Create within the student a sense of self-reliance and awareness which leads him to seek out appropriate careers with realistic aspiration levels.

The working partnership among local, state and federal agencies envisioned for the ES'70 Network progress beyond its early stages to a new statement of the elements of the program in 1968 as outlined below:

A. Staff Development

1. Professional Pre-Service
2. Professional In-Service
3. Non-Educational Professional Utilization
4. Sub-Professionals

B. Instructional Management and Career Guidance

1. Educational Objectives
2. Cluster Arrangements of Vocational Careers
3. Curriculum Development

2.

4. Instructional Material
5. Instructional and Learning Media
6. Modular Scheduling
7. Individualized Instruction
8. Guidance Progress and Procedures
9. Reduction of failures

C. School Management

1. Staff Utilization
2. Information Handling
3. Increased Efficiency in Communication
4. Simulated Decision-Making in On-Line Situations
5. Scheduling Progress, and Accounting for Pupils
6. Budgeting Fiscal Accounting, Personnel Records
7. Modification of Existing Plant
8. New Structures

D. Evaluation

1. Student Assessment
2. School Accreditation
3. Use of Data Processing in Evaluation
4. Student Certification
5. General Evaluation of Educational Progress

Based upon these initial goals and objectives Quincy set about the task of making these operational at the local level.

A Systems Approach to the Organic Curriculum was devised as Follows:

I. Inputs:

A. Learners who are free to set their own short intermediate and long range goals.

B. Learning Management Team that will design an individualized learner responsive system.

C. Learning materials which will provide for educational experiences that will fullfill the learner's goals

D. Learning spaces will be provided that create a learning environment which allow for the interaction of I. A-C.

II. Process that will produce:

A. Learning experience that produces marketable adult skills.

B. Provide for educational experiences through which the individual will achieve his goals(I. A.)

C. Provide for maximum use of technology through which the learner will achieve his goals.

D. Provide for the training and retraining of teachers in order to establish an individualized learning process which cuts across subject matter boundries.

III. Outputs produce individuals who posses:

A. A life style of inquiry and self motivation

B. A value system which allows them to function as an effective member of the social, political and economic world.

C. A marketable skill in the world of work.

ACCOMPLISHMENTS OF PROJECT OBJECTIVES

Description and Objectives

A Systems Approach to Education in Quincy is best characterized by listing the elements of the Systems Approach Chart (see Appendix # 1) as developed by Robert E. Pruitt in September 1967.

INPUTS

1. Learners
2. Learning Management Team
3. Learning Materials
4. Learning Space

PROCESS

1. Utilization of most relevant learning experiences
2. Provision of maximum opportunities for the individual's learning
3. Maximum use of technology
4. Training and re-training of teachers

OUTPUTS

Individuals Who Are Maximally Competent

1. As self-fulfilling individuals
2. As citizens
3. As workers

In a world that is maximally effective for all

The ultimate goal of the Quincy Public Schools is to provide a school environment in which programs of instruction are based on the concept of a learner responsive school system which translates the Outputs of the ES '70 Systems Approach Chart into behavioral projections.

The Quincy Public Schools has as its objectives the establishment of learning environments which will help young people to so act as to evidence a continuuing search for the value of life through

1. an understanding of individuality and
2. an involvement in aesthetic experiences.

These learning environments ought to assist young people in the development of:

3. a life style of inquiry
4. a self-motivated learning style
5. individual expression
6. marketable skills
7. an ability of cope with and/or guide change
8. worthy use of leisure time
9. fundamental processes
10. good physical and mental health

The environment ought to be shaped with the following modes of operating:

1. Immediacy.....Concern for the quality of immediate experience
   Honoring now, the present
   Joy
2. Austerity.....Concern for spending time and money of first things
   Investing in what really matters
   Essentiality
3. Authenticity.....Concern for truth, for revelation of facts and feelings
   Telling it like it is
   Honesty
4. Openness.....Concern for new possibilities in every area of human existence
   Valuing the new, the unfamiliar, the untried
   Risk-taking
5. Autonomy.....Concern for "universal emancipation" from institutional, social or political pressures
   Deciding for oneself
   Selfhood
6. Responsibility...Concern for living by values that transcend national boundaries, reach out to the world
   Acting in terms of what one knows to be right
   Community
7. Reverence.....Concern for meaning in human experience
   Search for the significant

All Quincy goals are presented as evolving. Every goal expressed is an invitation to clarification, challenge, redefinition, and revision. However, at any given time, all activities in the Quincy Public Schools ought to be assessed against the current goals.

6.

All instruction within the Quincy Public Schools should be aimed at effecting these behavioral projections.

The elements required in a total Systems Approach to Education which support the ES '70 goals and objectives are contained in the following outline:

I. Management of Community Variables:

A. Ecology of the school system's understanding of the socio-economic environment in which the school system is embedded.

B. Develop administrative skills in recognizing community goals and translating these into school system policies.

C. School-Industrial cooperations:

1. Develop "live" production educational sites.
2. Utilization of school personnel in Industry.
3. Adjust learning time schedules to industrial scheduling.

II. Business Management:

A. Non-Financial Operation:

1. Educational business planning

a. Equipment and personnel requirement
b. Physical facilities, requirement and management
c. Service operations
d. Environmental controls
e. Overall timeline for implementation and evaluation

B. Financial Operations:

1. Cost analysis
2. Budgetary control and procedures
3. Educational finance, long range planning

III. Organizational Components and Operations:

A. Analysis of Administrative Process

B. Staff Utilization and Deployment--Organization of Roles

C. Models of Communication Flow--Internal, External Analysis of Decision Making Process

1. Managerial roles, teacher role assignment
2. Criteria for effectiveness-evaluation process
3. Organizational change flexibility

D. Management and Development of Learner Responsive Instructional Systems:

1. Learner-Centered Instructional Systems Chart (See Appendix # II) which included the following elements:

   a. Job family behavioral analysis
   b. Job family heirarchy
   c. Student prescription
   d. Learner Activity Guide Sheets
   e. Individualized student scheduling
   f. Recording and reporting of student achievement
   g. Graduate placement and follow-up research

2. Individualized Learner Activity Process within an Instructional System (Project ABLE) (See Appendix # III).

E. Analysis of Teacher Variable:

1. Personality characteristics--profile

2. Professional profile

   a. Behavior patterns
   b. Training, abilities, and skills
   c. Attitudes and values
   d. Motives for teaching
   e. Teacher images
   f. Perception of children

F. Analysis of Learner Variables

1. Abilities, skills
2. Aptitudes and style of learning
3. Prior learning
4. Personality characteristics--profiles
5. Attitudes and values
6. Behavior patterns
7. Career goals

G. Management of Teaching-Learning Process

1. Strategies for allocating human and material resources for instructional purposes

8.

a. Coordinated planning and scheduling
b. Staffing patterns

1) team or cluster teaching
2) para-professional personnel
3) supplementary industrial sites

2. Organization for utilization and management of learning resources (Educational Technology)

a. Materials and equipment: Categories and use--books, films, tapes, video-tapes, slides, transparencies, graphic materials, 3D materials, recordings, radio, television, other self-teaching devices and material, computer assisted instruction
b. Laboratories: i.e. language, science, mathematics, arts and humanities
c. Information storage, processing, and retrieval system
d. Computer utilization plans

3. Organization for instruction

a. Student space allocation
b. Student scheduling
c. Testing and reporting
d. Cooperative teaching

H. Management of Evaluation System

1. Specification of evaluation criteria
2. Designation of evaluation agents
3. Information storage, analysis, and retrieval

Findings and Results

The findings and outcomes of the Organic Curriculum were expected to provide a demonstration of "national significance" regarding the improvement of the status and conduct of the educational process. The specific results during the ES '70 involvement in Quincy that follow are based on the Input, Process or Output elements of the Systems Approach Chart on page 5.

1. A plan for participation in the Decision Making Process based upon Input for Learning Management.

The Quincy Public Schools recognize the need for involvement and operate on the premise that any9ne who is to be affected by a decision

ought to be involved in the process of making that decision. The success of any effort that needs to result in change on the part of individuals, groups or organizations is related directly to the amount of involvement each has had in the process leading to a decision that calls for new action and behavior. (See Appendixes # IV)

Internally the Quincy Public Schools is evolving a vehicle for decision making that is based on a team structure, is keyed to competence and involvement and replaces the traditional, efficient, but ineffective, line-staff arrangements. The team structure has four components or levels:

a. Expanded Task Teams (E.T.T.)

Made up of community people, students, teachers, administrators; in short anyone interested in the task or affected by any action taken related to a task.

There is no limit on questions or problems that an E.T.T. méght examine. An E.T.T. remains in existence as long as an issue is being examined and makes recommendations to the next level.

b. Instructional Planning Team (I.P.T.)

Made up of Coordinators and Directors within the Quincy Public Schools who have a city-wide or discipline area responsibility. The I.P.T. has primary responsibility for hearing recommendations from the several E.T.T., conducting a system analysis on issues placed before it, developing the Quincy Public Schools annual budget, and making recommendations to the next level for action. The I.P.T. is supported by several standing committees in such areas as compensatory education and by principal groups at the elementary and secondary levels. In addition the community at large is represented by standing committees in Educational Development and Professional Conditions.

c. Learning Management Team (L.M.T.)

Made up of Assistant Superintendents and system-wide Directors such as that for elementary education, secondary education, staff personnel and pupil personnel. This group hears all recommendations channeled through the I.P.T. and acts as a cabinet to the Superintendent of Schools. The Superintendent acts on recommendations from the L.M.T.

10.

d. Superintendency Team (S.T.)

Made up of the Superintendent of Schools and all Assistant Superintendents. It is not a decision making body but rather a decision-implen ing group.

2. Research and Development based upon the Process Elements

The Quincy Public Schools maintains its own R/D component with an annual budget of approximately $1000,000. In view of the size of the Quincy Public Schools (17,000 students) this is a major contribution and indication of Quincy's commitment to the goals of the Process Dimension of the Systems Approach Chart.

In the past two years close to 50 R/D Proposals have been developed by staff members and submitted for local funding. This is exclusive of projects developed for submission to federal and state government agencies and to foundations.

Five full time professional staff members are engaged in R/D during the school year 70-71. This includes a Drug Curriculum Specialist, 2 Vocational Curriculum Developers and 2 Individualized In-Service Program Developers.

3. The Great Cities Research Council Based upon the Learning Material Input

The Great Cities Research Council has invited the Quincy Public Schools to participate in a proposal to create an Instructional System patterned after Quincy Public Schools Project ABLE

In the plan each participating school system is to establish exemplary demonstration centers for local, state and national dissemination for the job family under development. This would also be the center for the training of instructors and curriculum development support personnel. (Here, Quincy, with its operational program, could be of service during the early stages as a training center.) More important, the investment (through reciprocal activity in the other partner systems) would result in the early establishment of additional demonstration centers for other job family areas. This is a kind of "pay for one and get a dozen" bargain, and such proliferation of quality instructional systems at the "grass roots" level is a highly desirable outcome.

The proposal is presented with the following assumptions:

a. Various states are interested in developing, demonstrating, and testing, within their states, innovative programs of the type being evolved through ABLE research.

b. Funding for such programs may be obtained from the respective state departments of education in the states of the Great City Schools.

c. Included in the undertaking would be representatives from the following organizations:

   1. State Department of Education, Trade and Industrial Education Division.

   2. A majority of the member systems of the Great City Schools and school systems within the local area at the dissemination stage.

   3. A nearby teacher education institution interested and involved in similar activities to provide in-service training in individualized instruction to project participants.

   Baltimore and Philadelphia have started a pilot program with the Quincy Public Schools based upon the proposal for the Great Cities Council and the ES'70 Network as outlined herein under efforts of the Quincy Public Schools in concert with other ES'70 Systems.

d. Dissemination of this report should be undertaken among the members of the Council of Great City Schools and among the members of the ES'70 network.

4. Dissemination Activity based upon the Process Elemts:

During the summer of 1968 work was begun on a series of Curriculum Fliers (see Appendix # V) describing major undertakings of the school system. They illustrate how the Quincy Public Schools is using the behavioral approach to curriculum development. An attempt is made to update these fliers annualy.

12.

5. Teacher-Aides in Quincy fulfills the Process of Maximum Use of Technology.
In September of 1969 a new project was undertaken by the Quincy Public School Department - the training and utilization of Teacher Aides. This came as the result of Quincy's efforts to improve staff utilization necessitated by the implementation of individualized instruction in her schools.

Twenty-five women were selected, ten funded by the Quincy School Department and fifteen by the Title VI program for the handicapped and Title I program for children with learning disabilities. They were trained in much the same way as the professionals whom they were to assist, in a nine-week training course.

During their training they met with personnel in the various projects in which they were to be placed, with administrative personnel, worked with media specialists in learning how to operate school-related machinery, met with guidance and pupil services staffs, with the art specialists, physical education staff, and toured the Vocational-Technical School. They also underwent a "sensitivity training" program to learn how to get along with people, and an in-service training program with teachers.

The Aides now work in the several funded projects which are on-going in the Quincy Public Schools, consonant with the goals of U.S.O.E. funded Educational Systems for the Seventies (ES'70).

6. Model Schools Project encompasses the entire System Approach Chart
In the summer of 1969 an invitation was received from Dr. Lloyd Trump, of the National Association of Secondary School Principals, for North Quincy High School to participate in the Model Schools Project.

The Project is attempting to demonstrate how schools may change from relatively conventional programs to programs that are innovative and comprehensive. The transition may take up to five years. This is to be accomplished through emphasis on change in five areas. These areas are:

1. The role of administrators.
2. The role of staff, including para-professionals.
3. The role of students.
4. The curriculum, basic and enriching, which will be relevant to the talent, interests, and needs of the individual student, and which will be implemented in an improved environment through improvements in the conditions for learning, teaching, and supervising.

5. Effectiveness and efficiency in utilization of money, facilities, and the things of education.

Emphasis will also be on evaluations of the Project efforts, to assist in the establishment of priorities for additional improvements and for added benefits to school and community.

As we look at the concept of ES '70 we find that stress is on an individualized, relevant curriculum utilizing technology to a maximum and guided by highly trained personnel in an economically feasible atmosphere. An analysis of the goals of the Model Schools Project reveals that emphasis is on individualization and relevancy (basic knowledge and enrichment according to student's needs and interests), a systematic application of technology, spaces, and money, and a more effective role for students and staff. It is evident that the concept of ES '70 and the Model Schools Project have similar goals, goals to which Quincy has been committed for some time.

7. Project ABLE:

A Vocational Technical effort to fulfill the Process elements of the Systems Analysis Chart was initiated through the efforts of Project ABLE in 1965: a joint effort between Quincy Public Schools, the American Institutes for Research and funded by the United States Office of Education under Contract No. OE-5-85-019.

The principal goal of the project is to demonstrate increased effectiveness of instruction whose content is explicitly derived from analysis of desired behavior after graduation and which in addition attempts to apply newly developed educational technology to the design, conduct, and evaluation of vocational education. Included in this new technology are methods of defining educational objectives, deriving topical content for courses, preparation of students in prerequisite knowledges and attitudes, individualizing instruction, measuring student achievement, and establishing a system for evaluating program results in terms of outcomes following graduation.

The procedure begins with the collection of vocational information for representative jobs in eleven different vocational areas.

Analysis will then be made of the performances required for job execution, resulting in descriptions of essential classes of performance which need to be learned. On the basis of this information, a panel of educational and vocational scholars will develop recommended objectives for a vocational curriculum which

incorporates the goals of (1) vocational competence; (2) responsible citizenship; and (3) individual self-fulfillment. A curriculum will then be designed in topic form to provide for comprehensiveness and also flexibility of coverage for each of the vocational areas. Guidance programs and prerequisite instruction to prepare junior high students will also be designed. Selection of instructional materials, methods, and aids, and design of materials, when required, will also be undertaken. An important step will be the development of performance measures tied to the objectives of instruction. Methods of instruction will be devised to make possible individualized student progression and selection of alternative programs, and teacher-training materials will be developed to accomplish in-service teacher education of Quincy School personnel. A plan will be developed for conducting program evaluation not only in terms of end-of-year examinations, but also in terms of continuing follow-up of outcomes after graduation.

8. Project PLAN:

This is an ongoing effort to fulfill the elements of the Process dimension of the Systems Analysis Chart. One attempt to reach the ES '70 goals was implemented in 1967 through Project PLAN (Program for Learning in Accordance with Needs) in cooperation with Westinghouse Learning Corporation and the American Institues for Research. This system was developed with the aid of the computer as an aid to the teacher in providing each student with an individual program of study tailored to his needs, abilities, and objectives. To achieve these aims student and teacher work together to produce detailed objectives appropriate to the student's plans, learning abilitity and potential. Their next step is to select instructional methods and materials geared to these objectives from a complete file of study units specially assembled for Project PLAN. At the completion of each unit, the student's performance and progress are evaluated, and the next set of units assigned.

The student thereby proceeds at his own pace on a course of study created to fill his particular needs.

Choice of curriculum material is equally flexible, representing a selection of the best available teaching materials, techniques and media. A guide to this material is stored in the computer in the form of modules, or manageable segments, called "teaching-learning units."

The student is expected to learn from them, what the pre requisites are and for what type of student each unit is suited.

EFFORTS OF THE QUINCY PUBLIC SCHOOLS
IN CONCERT WITH OTHER ES '70 SCHOOL SYSTEMS

One of the major roles of the ES '70 Network has been that of a communication system.

This need is pointed up in the September 1969 issue of the ES '70 News in the Redefinition of Goals and Tasks of the ES '70 Corporation: A communication system linking member districts, State Department of Education and Federal Government in a common effort to achieve the purposes of the network.

An implication coming out of the New Orleans Conference was the need for a continuing dialogue between the experts. Communication linkages should be established and kept open between the curriculum developers and discipline experts. This would lead to a greater creative collaboration, elimination of unnecessary overlap and therefore save in energy, money and time and result in more cross fertilization of ideas and stimulus for new ones.

Along these lines the Quincy Public Schools became involved in many network activities the outcomes from which have helped to fulfill the elements of the Systems Approach Chart which strives to create a Learner Responsive Educational Process.

Following is a brief outline of 10 efforts on the part of the Quincy Public Schools to share expertise in concert with Network School Systems.

For further information as to the type of communication efforts carried out by the Network, may I refer you to the Final Report filed with the United States Office of Education, November 1969, under contract no. OEC-1-7-071037-3596, by the E. F. Shelley Co., Inc.

1. A joint proposal was submitted to the USOE for funding with the Philadelphia School System. The proposal responded to the need to involve students in the Decision Making Process which effects their educational career. Students from both school districts participated in the planning, development and writing of the proposal.

2. Q-PED - COPED: Quincy Project in Educational Development was the local dimension of the USOE funded Cooperative Project in Educational Development. The purpose of Q-PED - COPED was to establish a climate for change and experiment with change strategies in 20 school systems.

3. ESEA Title III - Proposal development: The network focused the proposals on a complete Systems Analysis of a portion of the high school curriculum. Quincy concentrated on the mathematics curriculum. In order to create a relevant integrated secondary mathematics program for non-college bound students. Each student would develop the necessary mathematical concepts and skills to enable him to achieve his unique performance objectives.

4. Instructional Systems Development with the Baltimore and Philadelphia Public Schools: Vocational and technical education is facing a critical need for instructional system development such as that characterized within the original goals of Project ABLE and ES '70. The technology now being applied with considerable success by the Quincy Public Schools ABLE staff is a step to meet these goals. The Baltimore and Philadelphia School Systems are field testing these programs with disadvantaged students. The pilot programs are scheduled for predominately disadvantaged schools. Among the groups will be one group of 10th grade dropouts who have returned to school. One of the other test groups will be special education students with reading levels ranging in the low primary grades.

A three day in-service training program was held in Quincy for teachers of these systems prior to the use of these individualized learning materials in their respective schools. During this workshop the teacher played the role of the student in the Individualized Learning Activity Process outlined in Appendix #III.

5. Workshops sponsored by the Network in which members of the Quincy professional staff participated:

A. Duluth, July 1969: A two week summer workshop was conducted to help the principals of the ES '70 High Schools to identify and develop strategies for implementing characteristics of an ES '70 High School. The workshop focus was on two processes: first, the principals were actively involved in identifying those characteristics, based on the overall goals of ES '70 which should be present in an ES '70 school, and from this develop a plan of strategy to implement the identified characteristics. Secondly, complimenting the first process, the input of ideas and models relevant to ES '70 were provided to the workshop by experts in various fields. These fields include: creating climates for change, working out performance objectives, achievement motivation, instructional technology, systems design and other problem-solving techniques, student involvement, curriculum integration, support systems, and models for evaluation. The results of the workshop were utilized to implement the goals of the ES '70 Project in the 18 representative school districts making up the ES '70 Network.

B. Achievement Motivation: The Institute for Man and Science

1970 held at Rensselaerville, New York, and directed by Dr. Alschuler, was based in part on the N'Ach Project at Broad Meadows Junior High School in Quincy. For reference to this program see Teacher Achievement Motivation, A. S. Alschuler, D. Tabor, J. McIntyre.

C. Willingbora, August 1969: Members of the Quincy staff attended a two week workshop built around the writing of Behavioral Objectives. This workshop produced a "How to do it" package to be utilized to teach teachers the Art of Performance Objectives in order to transpose their curriculum into individualized learning units.

D. Chicago - Research Utilizing Problem Solving Process (RUPS): A cooperative project between the ES '70 Network and the Archdiocese of Chicago.

The workshop was based upon the following two purposes: one is to try out the steps of the RUPS process as a way of working toward improvements in the classroom. The second is to try out some ways of increasing teamwork skills.

Each participant is asked to start out by pretending that he has completed the workshop and has just arrived back at his own school building. A teacher asks you to help her work toward improvement in her classroom problem situation based upon your recent experience at a RUPS Workshop.

The design of the workshop gives you a chance to try out the Research Utilizing Problem Solving process by going through it step by step as you "help your teacher" with her problem. During the workshop participants develop (1) skills needed to carry out the RUPS process, and (2) teamwork skills combined utilization while working on problem solving steps.

6. Art Project 1969-1970: Quincy participated in the Arts Curriculum Project, directed by Dr. George Stoddard of the John D. Rockefeller 3rd Fund.

The purpose was to help maintain in the high schools of the systems in ES '70 a well rounded curriculum in the arts and to coordinate and disseminate the findings. Beginnings have already been made in most of these innovative schools, and some programs are well along. The objective was not to diminish student interest in science or the humanities but to move the various forms of art education and art experience toward a comparable acceptance level.

In view of the timely exphasis on student and community involvement that goes beyond traditional scholastic offerings, this study and demonstration should mark a breakthrough in curricular planning

and educational advancement. Today many students are out of touch with the work of the school; they feel alienated. It is held that full attention to the place of the arts in personal and social development may help to bridge this gap.

7. Santa Fe - Willingboro, April 1970: Immediately following the Network meeting in Santa Fe the ES '70 coordinators, principals, and supervisors met in a two-day session in an attempt to identify the roles and activities of the change agent. This meeting was a follow up to the Willingboro workshop of last summer.

During the three week summer workshop in Willingboro the participants went through training in the writing of behavioral objectives. The Santa Fe Workshop was concerned with the use of the behavioral objectives, learning packages, and the implementation of change. The group of thirty participants was divided into three groups with roles assigned to each group member. Each role represented a problem in the form of an attitude against or for change as the role player understands the meaning of the ES '70 concept.

RECOMMENDATIONS

There is ample justification for the activities arising from ES'70 membership concurrence in needs and interests; for example, the field implementation and published activities have been discussed by the members in detail through their Quarterly reports on file with the United States Office of Education. An excellent collection of instructional materials could be derived from the various development enterprises on-going or recently completed in the districts. Individually, a good many of the schools have produced teaching materials which appear to have considerable market-place value. In deed, it might be said that--if the curriculum products are taken as a whole--impressive strides already have been taken toward the concept of an "organic" curriculum.

We cannot stress too strongly the need to continue the ES '70 Consortium. The concerns identified by each participant district reflect and focus in on our national educational concerns. There is no other group which is at the cutting edge of the problem and organized to work together in common goals. In order to move ahead in this vein may we suggest three action steps both at the individual school level and at the network management level; a self assessment, a realignment of the decision making process, develop a model for a Management Information System.

These three recommendations would be met by the scope (as set forth in the 1970) of the redefined goals of the network stated below:

I. Staff Developemnt

   A. Analysis of Teaching Variable for Pre Service - In Service Training
   B. Models for Communication Flow - Internal and External
   C. Plan for para professional utilization
   D. Plan for Industrial Site Training
   E. Stimulate the Decision Making Process to include all who will be effected

II. Instructional Management responsive to the learning style of each student

   A. Analysis of Learning Variables (i.e. ability, skill, style)
   B. Scheduling based upon day to day learning needs and interests
   C. Peer planning and evaluation

D. Career oriented instructional sites
E. Learning based on interpretation of learning environment
F. Guidance program for individualized progress reporting

III. School Management through use of technology

A. Develop strategies for allocation of human and material resources
B. Develop computer based management concurrent with Planning Programming Budgeting System
C. Develop skills based upon community goals and resources
D. Proved physical structures which utilize multi media approach to the learning process

IV. Evaluation based upon relevance and feed back loop

A. Community goals translated into school system policies
B. School industrial cooperations providing for feed-back system
C. Live production sites involving student and teacher
D. Learning variables (behavior patterns and career goals)
E. Follow up studies utilized to recycle Program of Studies

It is academic to discuss the need for comprehensive planning, or its impact on instructional programs. The point to be made is that it is nearly impossible to develop oustanding educational programs without first providing management methods. School administrators, faced with increased financial and operational complexities, need new methods that will provide rapid assessment of alternative courses of action, that will measure progress toward goals, and that are directed toward greater flexibility of action. If such methods are not provided, school districts will find it difficult to provide students with the knowledge and training needed to cope with an ever accelerating rate of change.

The proposed approach would be based on the need for financial support to develop a "first step" data base design on which to subsequently build a comprehensive management information system.

The data base design will: (1) aid school districts plan and budget, (2) generate reports which are required by State and Federal governments, (3) provide data for the comparative analysis of school operations.

The proposed initial system consists of three components - a data base, a planning-budgeting model, and report generators.

The Management Information System

*Data Base. We propose to design an automated data base. The data base would support:

1. Local, State, and Federal reporting for administration of aid formulas and other accounting requirements.
2. A planning model to be used for forecasting enrollment, resource needs, resource utilization, and budgets.
3. Statistical and comparative analysis of school district performance and costs.

The data base would be designed to be flexible so that (1) it could encompass PPBS, (2) it will accept subjective forecasts from local school districts of enrollments, costs, facilities and personnel, and (3) it could eventually provide a basis for improved operational scheduling.

*Planning-Budgeting Model. The planning-budgeting model would read from the daba base current conditions historical data for forecasting and planning assumptions. The future consequence of planning assumptions and possible decisions would be computed in terms of enrollments, classroom utilization, student station utilization, teacher requirements, teacher loading, costs, and budget. This model would help to improve facilities' management, personnel decisions, curriculum design, and allow a sounder basis for chosing among alternatives when constrained by finances.

*Report Generators. The report generators would create the required State and Federal reports currently produced, but without the present time lag. With common data, statistical and comparative analysis will also be facilitated. The data base will be designed and automated so that special reports can be generated efficiently as requested.

The planning model would accept subjective judgements about the future and be flexible enough to allow local school districts to define programs in their own way and to allocate joint costs to programs as they see fit. It would also be a planning tool for individual schools, for any combination of schools in the school district or for the total school district. The data base and the planning-budgeting model will be applicable to large and small school districts, Regional High School districts, Elementary School districts, and combined Elementary-Secondary School districts.

CONDUCT OF THE PROJECT

Of prime importance to this project is the experience gained through the involvement in the Coordination of Organic Curriculum. For this reason, heavy emphasis is placed upon interaction with participating school districts and appropriately timed reviews by an advisory committee during the course of the first year implementation requirement. In addition, the field test of a prototype planning-budgeting model is emphasized in order to obtain practical experience and demonstrated effectiveness. The sequence of project tasks to be undertaken are:

Phase I:

1. Identify several school districts with which to conduct the project. A geographical distribution and size distribution of districts is needed, e.g.

   . city school system (Quincy)
   . large town school system
   . small town school system
   . regional school system

2. Form an advisory committee

3. Discover current situations:

   . reporting needs
   . current MIS information
   . demands related to school budget submission

4. Discover areas where and how a better MIS can help the budgeting processing, especially the budget at negotiation and approval process

5. Identify future information needs:

   . reports expected to be required
   . performance measures of teachers and courses to be considered
   . in planning and budgeting
   . learning styles of students and teaching styles of teachers

6. Document system specification, review, and approve

Phase II:

1. Preliminary design and data base structure, report generators, and adapt college planning model to school district needs

2. Field test

3. Final design of data base structure, report generators, and planning-budgeting model

The following are examples of planning problems requiring improved information and methods:

*Improved Evaluation of Alternatives
Long range planning for facilities, personnel, curriculum, and scheduling is poor or non-existent in most school districts. As a result, the long-range consequences of today's decisions are unclear, thus reducing effectiveness and raising costs.

*Greater Complexity of Program, Planning, and Budgeting
New demands for accountability by the public at large, generate an ever-increasing need to define budgets by program rather than function. Program oriented planning is complex and requires computer aids if a proper evaluation of alternatives is to be made.

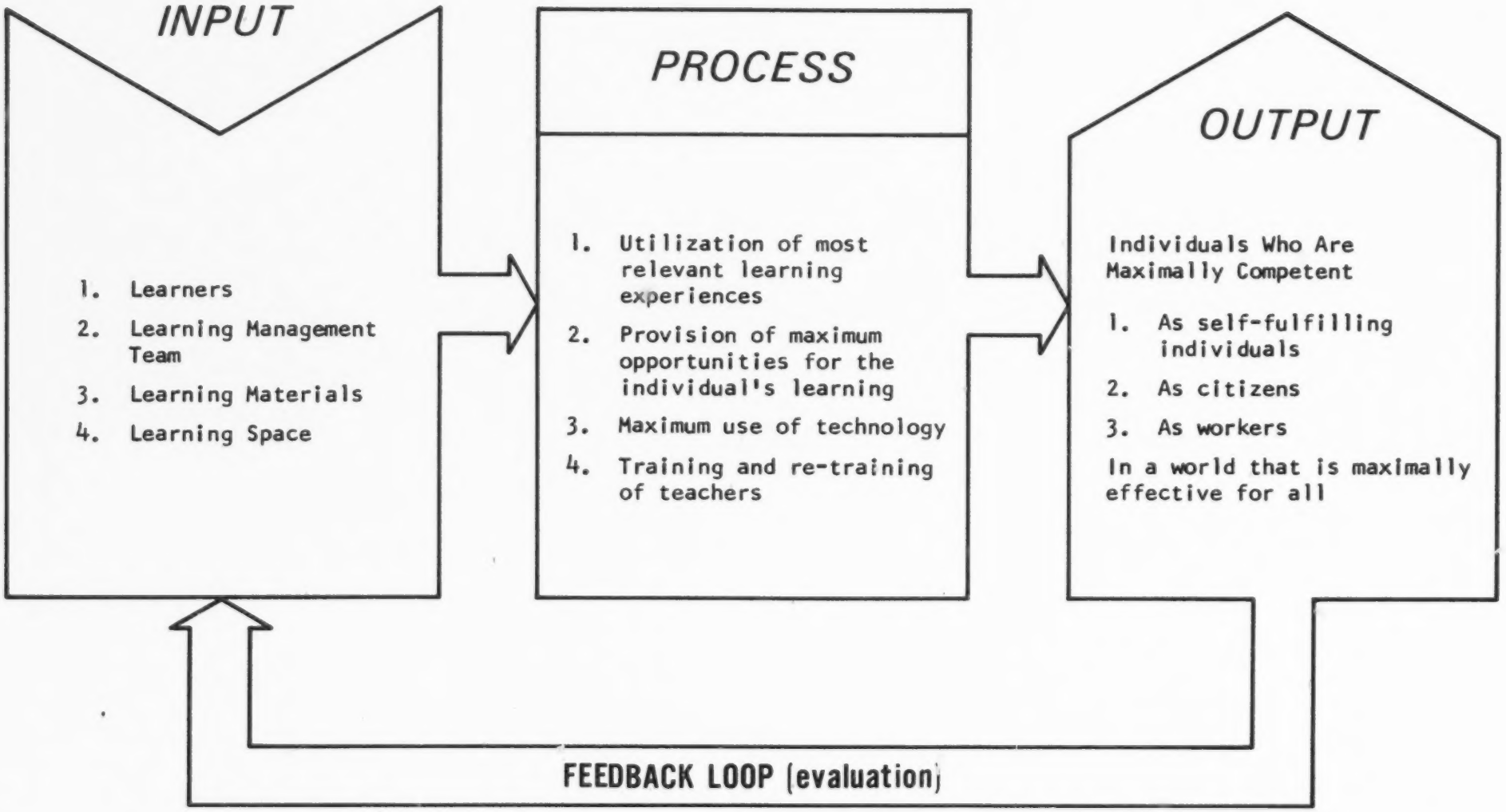
*Teacher Unionization
With the increase in union negotiations of teacher contracts, including both compensation and curriculum, school districts need tools which quickly and accurately portray the effect of different demands and settlement alternatives.

APPENDIX I

SYSTEMS APPROACH CHART

SYSTEMS APPROACH

EDUCATIONAL SYSTEMS FOR THE SEVENTIES


INPUT
1. Learners
2. Learning Management Team
3. Learning Materials
4. Learning Space
PROCESS
1. Utilization of most relevant learning experiences
2. Provision of maximum opportunities for the individual's learning
3. Maximum use of technology
4. Training and re-training of teachers
OUTPUT
Individuals Who Are Maximally Competent
1. As self-fulfilling individuals
2. As citizens
3. As workers
In a world that is maximally effective for all
FEEDBACK LOOP (evaluation)

E. Pruitt 9/67

PROJECT ABLE--QUINCY PUBLIC SCHOOLS--AMERICAN INSTITUTES FOR RESEARCH, QUINCY, MASS. 02169

APPENDIX II

LEARNER CENTERED INSTRUCTIONAL SYSTEMS CHART

DO YOU HAVE A LEARNER–CENTERED INSTRUCTIONAL SYSTEM FOR VOCATIONAL AND TECHNICAL EDUCATION?

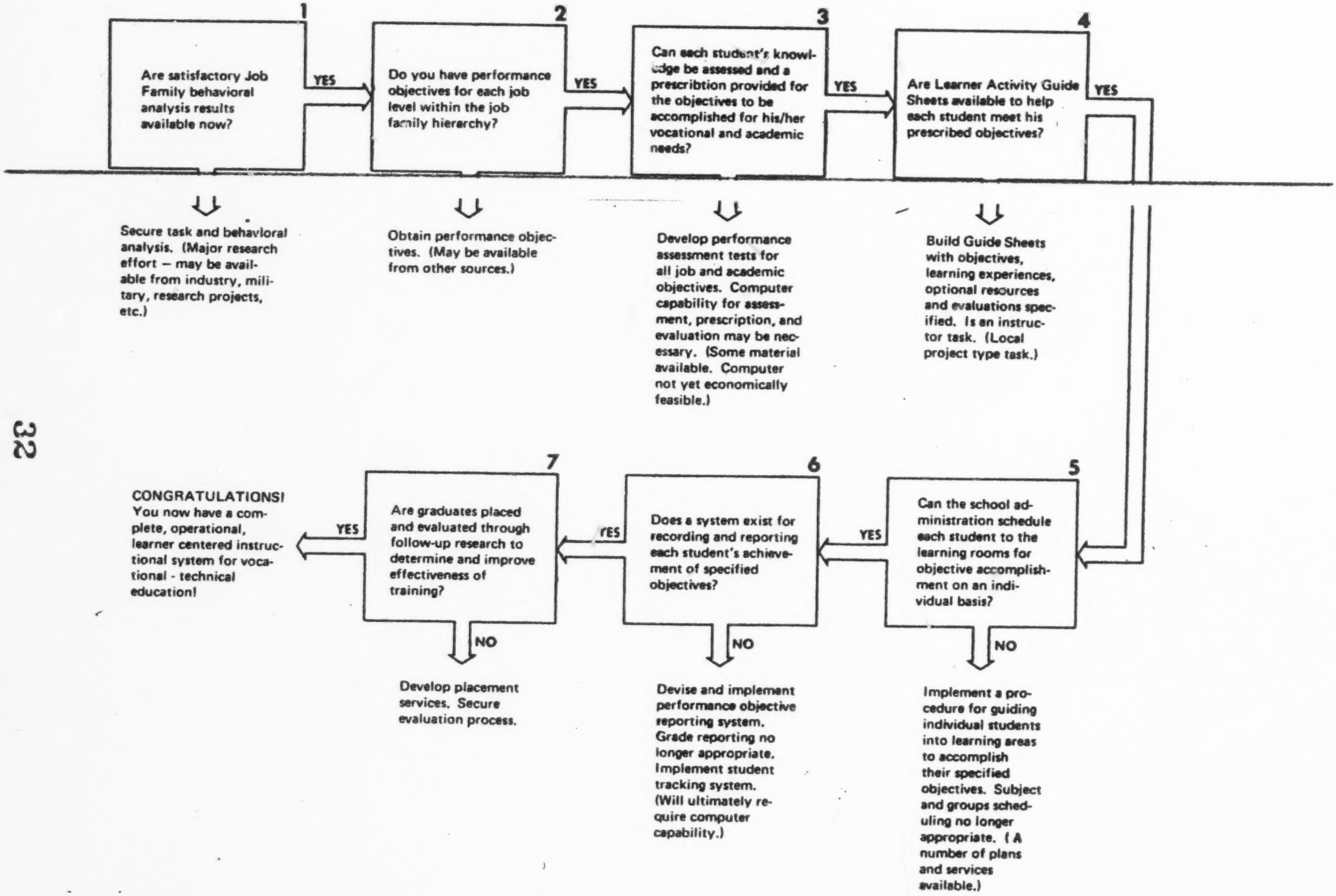

1
Are satisfactory Job Family behavioral analysis results available now?
YES
2
Do you have performance objectives for each job level within the job family hierarchy?
YES
3
Can each student's knowledge be assessed and a prescribtion provided for the objectives to be accomplished for his/her vocational and academic needs?
YES
4
Are Learner Activity Guide Sheets available to help each student meet his prescribed objectives?
YES
Secure task and behavioral analysis. (Major research effort – may be available from industry, military, research projects, etc.)
Obtain performance objectives. (May be available from other sources.)
Develop performance assessment tests for all job and academic objectives. Computer capability for assessment, prescription, and evaluation may be necessary. (Some material available. Computer not yet economically feasible.)
Build Guide Sheets with objectives, learning experiences, optional resources and evaluations specified. Is an instructor task. (Local project type task.)
5
Can the school administration schedule each student to the learning rooms for objective accomplishment on an individual basis?
YES
6
Does a system exist for recording and reporting each student's achievement of specified objectives?
YES
7
Are graduates placed and evaluated through follow-up research to determine and improve effectiveness of training?
YES
CONGRATULATIONS! You now have a complete, operational, learner centered instructional system for vocational - technical education!
NO
Develop placement services. Secure evaluation process.
NO
Devise and implement performance objective reporting system. Grade reporting no longer appropriate. Implement student tracking system. (Will ultimately require computer capability.)
NO
Implement a procedure for guiding individual students into learning areas to accomplish their specified objectives. Subject and groups scheduling no longer appropriate. (A number of plans and services available.)

Figure 2.

GEN/JN/JWU
4/70

APPENDIX III

INDIVIDUALIZED LEARNER ACTIVITY PROCESS CHART

INDIVIDUALIZED LEARNER ACTIVITY PROCESS WITHIN AN INSTRUCTIONAL SYSTEM

Learns required information on:
- Safety
- Nomenclature
- Tools
- Shop Organization
- Procedures
- Rules
- (Learning Activity Process May Be Applied)

Y
Select Task (Check Task Sequence Alternatives)

Z
Select Module (Check module sequence alternatives.)

1
Student Assessment (by student and teacher reveals adequate previous experience

NO

YES

2
Performs Satisfactorily (paper-pencil portion of criterion performance test)

NO

YES

3
Performs Satisfactorily on Skill Test Segments of Criterion Exam

NO

YES

4
Meets Satisfactory Instructor Evaluation (Criterion Performance Checklist)

NO

YES

RESOURCES AND EXPERIENCES AVAILABLE

LEARNER ACTIVITY

Knowledge and Skill Required to Meet Performance Goals Needed for Entry Level Certification at Specific Job Level in Hierarchies of Job Family Clusters.

X
Receives orientation on:
- Rationale
- Job Family Cluster
- Job Hierarchy
- Job Level
- Job Description
- Performance Objectives
- Criterion Exams
- Organized Activities List
- Student Tracking System
- Occupational Readiness Record

← STUDENT ENTRY

CODE FOR RESOURCES AND EXPERIENCES AVAILABLE

LU	=	adjunctive type learning unit
T	=	Teacher assistance and tutoring
P	=	Programmed materials
L	=	Laboratory practice and experience
OJT	=	On-the-job experience and practice
PG	=	Peer group tutoring and assistance
B	=	Books, manuals, technical materials, various printed media, and available shelf materials.
AV	=	Audio visuals such as CCTV, film loops, photographs, drawings, samples.
S	=	Simulators, mock-ups, and various mechanical teaching-learning devices.
CG	=	Career guidance
CAS	=	Critical Academic Skills

X
REPEAT PROCESS for next job level in hierarchy of job family cluster

Instructor certifies satisfactory job level performance (Occupational Readiness Record Completed)

Y
Select a new task (check task sequence alternatives) REPEAT PROCESS for each task in job level

Z
Choose next module (check module sequence alternatives) for task selected.

REPEAT assesment, learning, and evaluation PROCESS for each module

APPENDIX IV

DECISION MAKING PROCESS

As educational leaders within the Quincy Public Schools each of us shares in the responsibility for implementing an educational program with, not for, the young people of Quincy that is relevant to what each needs to know, and is presented to each in a manner and taught in an environment that is responsive to the learning style of each individual. If each of us shares in the responsibility for implementing such a program, then it follows that each should share in the development of the program and each should be held accountable for not only its relevance but its effectiveness. Obviously each of us cannot be expected to develop a K-12 and beyond program in the cognitive, affective or psycho-motor domains, nor can each of us be held singularly responsible or accountable for the implementation and effectiveness of a relevant instructional program. However, each of us must be involved and participate in the process that leads to decision making in the Quincy Public Schools.

Indeed, involvement must not be limited to those of us who have been appointed to administrative posts; but rather involvement must provide for meaningful input from all our colleagues and associates--professional, custodial, clerical and service. It must provide for input from students and parents as well as from concerned citizens of this community.

I have spoken on this issue before and have no doubt but that I'll speak on it again and again. To me involvement in the decision making process is a prerequisite, skill, an on-going concern, and an ultimate goal necessary for the development, implementation and effectiveness of a relevant-individualized educational program. My personal list of priorities for achieving quality education in the Quincy Public Schools is extensive, however there is none higher than involvement. Involvement is the process vehicle through which our humanistic and academic goals can be realized.

In order to develop, implement and assess a relevant instructional program K-12 we must involve one another. In order to be certain that we know as much as we possibly can about how each one of our 17,000 students learns we must involve one another. In order to make the best utilization of space, learning materials and technology we must involve one another. In order to rest assured that our in-service training needs are being met, and that our staff and human resources are being properly allocated and developed we must involve one another.

In short I am asking that involvement in the decision-making process become a, not the, hall mark of an educational system for the seventies in Quincy.

While we have been talking about involvement in the decision making for the past several years, in my opinion we are, on an absolute scale or measure, far short of what I feel ought to be our end-in-view.

Involvement or participation in the decision-making process does not lend itself to easy definition. It is more in the becoming than the being; it is more in the doing than the done. It is existential in character.

Democracy and involvement are not synonymous terms. Participation in the decision-making process does not mean one man one vote. It is not an abdication or violation of trust by those who have been charged with administrative and leadership responsibilities. It is not a revolt against authority and responsibility in favor of an egalitarian community, institution or society.

Participation in the decision making process means that he who is to be affected or influenced by a decision, an action, ought to be involved in the process that leads up to making that decision.

Involvement must be based on competence, and it is competence that must now be defined. To share in the process of decision making on a particular task or issue an individual needs to be cognitively and affectively competent. He must

reflect areas.

1. An awareness of the task, need or issue.

2. A knowledge of the task, need or issue as the result of study and research.

3. A realization that ultimately when a decision is made it will affect his actions.

4. A desire to be involved in the decision-making process.

5. An ability to interact with other human beings.

6. A willingness to act in good faith in support of a decision that has been made in good faith.

7. An appreciation that all decisions are subject to review based on new or more clearly defined input.

What is the state of the art today within the Quincy Public Schools. In my opinion it is as follows:

1. As Superintendent I have a deep commitment to the concept of participation in the decision-making process.

2. A four team model has been developed and in some instances is operational.

3. The Instructional Planning Team and Learning Management Team groups are struggling with what tasks are most appropriately theirs for decision making and for recommending to another body.

4. Principals are asking where do they fit individually and collectively in the decision-making process.

5. E.C.T. function spasmodically and where they are in existence they are frequently not clear of their role, tasks, authority and responsibllities.

6. Assistant principals, Department Heads, classroom teachers, staff and support personnel along with custodial, clerical and service personnel have no clear place in the decision-making process.

7. Students are seldom meaningfully involved in decision making.

8. Community groups are not involved except for the Compensatory Education Board, Headstart, E.D.C. and P.C.C.

9. A conscious effort for involvement based on competence has not categorized participation in the decision-making process.

10. The existing model for decision making is inadequate.

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It is neither intended nor necessary that any of us should feel guilty about our admitted inadequacies in developing and implementing an effective model for participation in the decision making process. It is very doubtful, that we will ever be satisfied with a vehicle for decision-making that reaches out for involvement.

Therefore, in appreciation of what we have been attempting to do, yet in realization that we need to refine our thinking, modify our vehicle and move to the next plateau I would like to share with you some of my current thinking on "Next Steps".

Recommendation One: Leadership Assembly

I am proposing that we establish an Educational Leadership Assembly. Membership in the Educational Leadership Assembly will be extended to all persons within the school system who are in positions of leadership. Among the professionals this would include all those from the position of department head or assistant principal on up. In addition persons in key leadership positions from the non-professional, para-professional, custodial, clerical and service groups would be included. Leadership from the several associations would be included. Representatives from student, parent and community groups would be included. Representatives from private and parochial schools within Quincy would be included. The assembly might number up to 150 people.

The purpose of the Assembly will be information giving. It will not function as a forum, dialogue or decision-making group. The sole purpose of the Assembly will be to disseminate pertinent information to key people within the educational community of Quincy.

The Assembly will meet three or four times each year. Agenda items will be limited to reports on on-going efforts within the school system, or programs approved for future development.

Recommendation Two: Forum on Curriculum Relevance

I am proposing that we establish a Forum on Curriculum-Relevance. The purpose of the Forum will be to hear proposals for curriculum development and make recommendations to the I.P.T. In establishing such a Forum consideration needs to be given to:

1. Membership

    a. Size
    b. Representation

        (1) Students
        (2) Teachers
        (3) Department Heads
        (4) Assistant Principals
        (5) Principals
        (6) I.P.T.
        (7) Community

2. Operating Procedures

    a. Chairmanship
    b. Voting
    c. Agenda Building
    d. Parliamentary Procedures
    e. Meetings
    f. System of Priorities

3. Degree of Authority and Extent of Accountability

Recommendation Three: Principals Self Analysis of Personal Role and Building Goals

I am proposing that each principal devote up to one week in personal reflection away from the day-to-day operational demands of administering a school in order to give in-depth consideration to an analysis of his role consistent with his stated five year goals.

In analyzing your role measured against your five-year goals I would ask that each principal give consideration to:

1. Tasks that you need to perform

2. Tasks that others need to perform for you or in support of you if you are to realize your goals

Your five year goals need to be stated in terms of the dimensions cited in our Systems Approach Chart. Your role needs to be defined in terms of what tasks identify you as the educational leader of your building, what tasks are managerial and need to be performed by other members of your staff and what tasks go beyond your sphere of influence to control and need to be performed by someone external to your building and staff.

I am recommending that this task be performed outside the physical confines of the school and during this period that the operational responsibility for the school be turned over to the assistant principal. I am encouraging each principal to avail himself of this opportunity prior to the February recess.

By way of conslusion I would like to review a few of the major points I have attempted to make and then make a request of the principals and the Instructional Planning Team:

1. Involvement in the decision making-process ought to characterize decision making in the Quincy Public Schools.

2. The concept of participation in the decision-making process is an evolving one. There is one set formula for accomplishing involvement. The process must be under constant assessment and re-assessment.

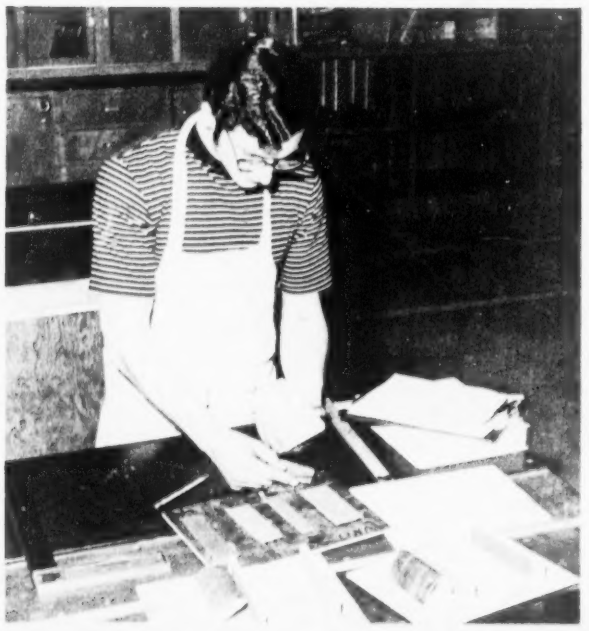
3. Within the Quincy Public Schools we have made some significant gains at developing and implementing a vehicle for participation in the decision-making process.

4. Participation in the decision-making process is not synonymous with one man one vote and must be based on competence.

I would now ask that the principals in respective groups at the elementary and secondary levels as well as the I.P.T. consider the observations I have made and in particular the three recommendations. I have not attempted to ordain in these recommendations what it is that we must do next. I appreciate that the recommendations are just that. They are not conclusive, they are suggestive. I have not attempted to answer all the questions attendant to these recommendations. I simply don't have all of the answers.

APPENDIX V

CURRICULUM FLIERS



using selected occupations a detailed analysis is made of what people must know to do their work successfully . . . this information then becomes the basis of a new kind of curriculum for the Quincy Vocational-Technical School . . . one that scientifically customizes learning procedures for each student.

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

Project ABLE

I

It often surprises people to learn that about 75% of high school graduates across the nation do not go on to college! Equally alarming is the fact that most of those who do graduate from high school followed a "general" curriculum which fitted them for no particular job. Added to this is the fact that some 35% of all high school students leave school *before* graduation. Quincy statistics are close to the national average -- 24% go to college - 11% junior college - 2% drop out.
Obviously, if this trend continues millions of our population will be unemployed or have low-skill, low-paying jobs without any real future security. Note how newspapers report on the front page problems of the poor and unemployed (and the cost of welfare) - while the classified pages are crammed with help wanted ads.

Why was this project needed?

It points up the need for *change* in education. A need to recognize that traditional high school curricula were designed years ago to meet college entrance requirements -- and the *relevance* of such requirements need re-examination. For example, what are we educating for? Are "drop-outs" really young people who found college-track subjects boring -- irrelevant to their interests and goals - or are they simply "early-leavers" who are capable of much more education but of a different kind?
Project ABLE is designed to provide every non-college bound student with the opportunity to get an education which will - prepare him for employment, accommodate his role as a citizen, and expand his view of life through self-fulfillment. Here is an important kind of curricula change capable of greatly improving the quality of education in Quincy.

What will the curriculum cover?

Pilot demonstration programs are operational in electronics, general woodworking and power mechanics. Pilot demonstration programs are also operating in academic support areas at the 10th, 11th grades in English, mathematics, science, and social studies.
(see statistics)

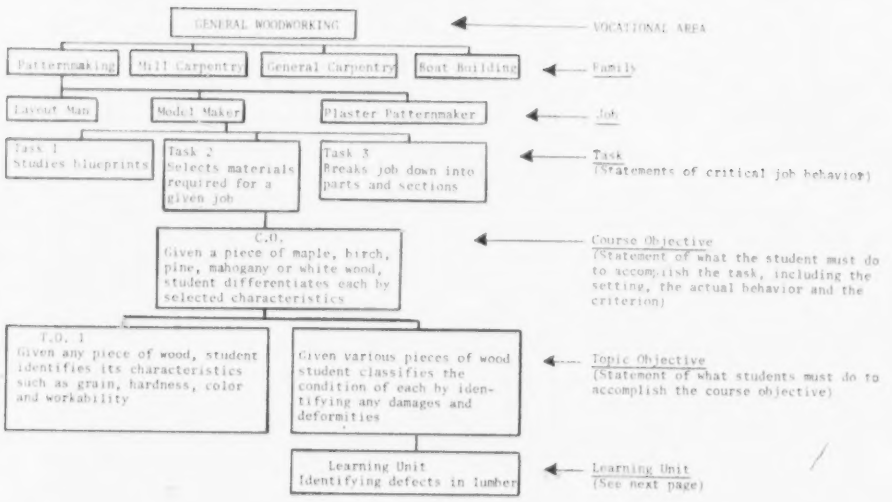
How was the curriculum constructed:

Ordinarily, curriculum content is selected from the *total knowledge* of a particular subject. Examining the field of science, for example, a choice is made of information suitable for a grade level which builds up the previous year's work and thus prepares the student for the grade beyond. In the case of this project, however, an analysis was first made of what competent people *actually must know* and *be able to do* in the selected vocational areas mentioned above. From this study was derived the *kind* of skills and the *scope* of knowledge which a student must acquire. These were then arranged in a sequence of step by step learning experiences which would serve to lead the student towards his learning goal. (see diagram).

In What Way is this Curriculum Unique:

Objectives, acting as a target for *all* the learning endeavors, are a fundamental curricula foundation. Heretofore they are described in general terms – for example – like learning to become a machinist (an abstract term). The *real* problem is to state objectives in *specific* operational terms. From this target other objectives are defined and resolved systematically into smaller and smaller components. The final "topic" objectives in the "shred-out" are those used by the student to tell him all the things he is expected to be able to do after completing his assignments.
Commonalities have been extracted from the requirements of all jobs considered in the selected "families". These serve to minimize the amount of "new" training that would result from job change for they are used – commonly – in the performance of many jobs. Levels of understanding in mathematics, knowing the characteristics of materials – even the multiple uses of a hammer!

Supplement to School Trends - Official Publication of the Quincy Public Schools - Quincy, Massachusetts


GENERAL WOODWORKING
VOCATIONAL AREA
Patternmaking
Mill Carpentry
General Carpentry
Boat Building
Family
Layout Man
Model Maker
Plaster Patternmaker
Job
Task 1
Studies blueprints
Task 2
Selects materials required for a given job
Task 3
Breaks job down into parts and sections
Task
(Statements of critical job behavior)
C.O.
Given a piece of maple, birch, pine, mahogany or white wood, student differentiates each by selected characteristics
Course Objective
(Statement of what the student must do to accomplish the task, including the setting, the actual behavior and the criterion)
T.O. 1
Given any piece of wood, student identifies its characteristics such as grain, hardness, color and workability
Given various pieces of wood student classifies the condition of each by identifying any damages and deformities
Topic Objective
(Statement of what students must do to accomplish the course objective)
Learning Unit
Identifying defects in lumber
Learning Unit
(See next page)

Prerequisite learning has been built into the Junior High program of studies to give students the basic knowledge they will need. A guidance program which assists students in career decision making skills is fully operational at the 7th, 8th, and 9th grades.

Individualizing instruction accommodates differences among students. In the traditional classroom it is assumed everyone could learn at the same rate and the teacher, therefore, conducted the class by leading students through each lesson. Brighter students were bored -- slower students fell behind. *Project Able incorporates a concept that allows each student to progress through a course according to his own capability.* In other words, learning will be a *process* guided by the teacher. The student's "test" for success is established when he can accomplish a set of objectives which tell him all the things he is expected to be able to do after completing an assignment. The *key* feature is that students are responsible for their own learning. This process enables the teacher to identify student problems and then to assist, on an individual basis, those who require help. When the student completes an assignment and feels he is ready to go on he informs the teacher who immediately administers the appropriate achievement test – if the student has succeeded, an advanced assignment is made.

As a "systems approach" this is an important dimension of Educational Systems for the 70's (a U.S. Office of Education network of schools in which Quincy is a participant). It includes a consideration not only of independent study, team peer learning, and multi-size group situations but moves learning from the listen, read, write, and recite syndrome into more extensive use of the senses, primary experiences, and technological media.

Is the Project a Success?

This depends upon a viewpoint. *Any* change in a large institution creates organizational discomforts. Student evaluations will be made from "follow-up" data accumulated after graduation. This will yield employment information and career progression. Systematic information of this kind will provide for an evaluation of long term effects and will accurately define the degree of success.

Generally the evaluation of the program must be an extended effort conducted on several levels; (1) on the individual learning unit where the testing of student performance is based on criteria contained in the learning unit objective; (2) on the impact of the learning materials by the reactions of students, teachers, and admintrators regarding content, sequences, and relatedness; and (3) on the final and formal evaluation which includes experimental and control groups and special follow-up procedures. It might be noted that ABLE type forms of individualized instruction have been used in Florida, Illinois, and California (as well as the military) with considerable success.

STATISTICS

Official Title:

Development & Evaluation of An Experimental Curriculum for the New Quincy Vocational-Technical School (Joint Research Project - Quincy Public Schools and the American Institute for Research)

Funding:

United States Office of Education. Project No. 5-0009, Contract No. OE-5-85-019.

Budget:

Total cost (Quincy and USOE funds now approaching 1.5 million).

Staffing:

American Institutes for Research and Quincy Public Schools - 11 (full time) research people and director (full time).

Pupil Population:

Curriculum intended for non-college bound: Quincy Junior High Schools, Quincy Senior High Schools, Quincy Vocation-Technical School (regular program), Quincy Vocation-Technical School (advanced program).

Materials:

Developed and published by project staff. Films, etc. commercial. Training aids under development within house.

References:

Project Quarterly Technical Reports - U.S. Office of Education. Project Director. American Institutes for Research, 135 N. Bellefield Avenue, Pittsburgh, Pa. 15213.
Superintendent of Schools, Quincy Public Schools, Coddington Street, Quincy, Mass. 02169.

Time:

Beginning 1 January 1965 - Ending 31 December 1969.

Curricula:

1. Business Education - Secretarial, Clerical, Bookkeeping, Sales
2. Computer Data Processing - Equipment Operators, Programmers
* 3. Electro-Electronics - Electrical Installation, Electronics Repair
4. Foods Preparation - Food Service, Food Processing
5. General Piping - Plumbing, Pipefitting, Refrigeration
* 6. General Woodworking - Carpentry, Patternmaking, Boatbuilding
7. Graphic Arts - Printing, Commercial Art, Drafting
8. Health Occupations - Medical Assistants, Personal Care
9. Home Economics - Homemaking, Home Services
10. Metals and Machines - Sheet Metal, Machinists, Foundry
* 11. Power Mechanics - Auto Body, Auto Mechanic
* 12. Academic Areas - English, Science, Mathematics, Social Studies

(*under intensive development)

Guidance program is fully operational.

With "teaching learning units" the curriculum can provide for independent learning and custom instruction . . . monitored by a computer . . . that stores this information . . . returns an evaluation of each student's progress and describes the next procedure.

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

PROJECT PLAN

3

Introduction

If schools are expected to respond to the vastly expanding body of knowledge that is now available they must learn how to use the technological tools designed to deal with it. One of these tools is the computer. The utilization of this invention as a challenge to more traditional forms of instruction was the idea of Dr. John Flanagan, President of the American Institutes for Research. He persuaded the Westinghouse Learning Corporation to support a system which could adequately deal with the data required to store and evaluate student progress *on an individual basis.*

These organizations invited the Quincy Public Schools (as well as 13 other school systems across the nation) to participate in a special project called – "Program for Learning in Accordance with Needs."

Why Is This Project Needed?

To establish what individual students need to know and to decide what specific materials he needs in order to learn such knowledge is a critical problem for teachers. Because each student learns at a differing rate, has a personalized learning style, and needs to study some subjects longer – what is *really* needed is a series of courses custom designed for *each* student. But – every teacher has *many* students! This makes the task so complex it is almost impossible. Project PLAN is aimed at helping teachers cope with the multitude of details required to provide the advantages of individualized study for all students.

How Does PLAN Operate?

The program presently functions in years 1, 2, 5, and 6 at the Adams Elementary School – Grade 9 at Sterling Junior High School, and Grade 10 in Quincy High School.

Over a period of three years each of the participating school systems has sent 3 teachers per year to Palo Alto, California to develop the curricula program at each level – in Language Arts, Reading, Mathematics, Science and Social Studies. At the American Institutes for Research the same teachers work with leading educators and research scientists in the Learning Methods and Materials Department.

There is a computer terminal at the Adams School linked with the master computer in Iowa City, Iowa. Information concerning each student's progress and achievement is relayed regularly both for storage and for an evaluative response concerning procedural recommendations for the student's next course of study. Students do not use the computer.

How is the Curricula Prepared?

The curricula is structured by sets of educational objectives. These are comprehensive and carefully written statements which describe the kinds of learning designed to bring about the particular types of behavioral changes required of a student if he is to demonstrate that he can accomplish the objective. To meet such objectives, groups of learning activities are prepared by Quincy teachers in the form of Teaching Learning Units (TLU's). Three or more TLU's have been prepared to meet each set of objectives. They include a variety of activities – work with a partner, with a group, individual conferences with the teacher, and group work with the teacher. The TLU's vary in the types of activities and materials used and are geared to a variety of abilities and styles of learning. One student, for example, may need to work with verbal sounds -- another may not. Each student studies

according to his needs. At almost any one time, therefore, *every* student may be working on something different!

How Does the Curricula Function?

It is important that a student evaluate his progress through use of self-correcting and self-checking items. A test (profeciency measure) immediately follows the completion of *each* Teaching Learning Unit. These tests are designed to (1) check what the student should have accomplished (2) review what has come before and (3) pretest – in order to predict and prescribe the next step.

The individualization of the PLAN curricula is part of the process dimension in a systems approach to curricula revision that incorporates the use of present day technology. A wide variety of commercially prepared teaching materials are used in a multi-media approach including books, study sheets, tape recordings, language masters, records, transparencies, and a variety of other kits and audio-visual aids to learning.

Is PLAN a success?

From the reactions of teachers and students, this kind of systems approach is one important answer to the acceleration of change and the increase in knowledge. It seems to hold the only promise for dealing appropriately with the massive increase in detail which results from accommodating the program for improving independent learning. It might be noted, however, that Florida, Illinois, and California have already used forms of individualized instruction with considerable success. The scientific evaluation of any innovation in education is, of course, an extended effort. This procedure was first used with students in September 1967 and the results of its comparative effectiveness cannot be adequately verified for about twelve years.

STATISTICS

Official Title:
Program for Learning in Accordance with Needs.

Funding:
Westinghouse Learning Corporation.

Staffing:
17 Quincy teachers.

Pupil Population:
Adams 50
Sterling Junior High School 60
Quincy High School 60

Materials:
Developed by Quincy Teachers and Project Staff. Commercial aids.

References:

Dr. Lawrence P. Creedon
Superintendent of Schools
Quincy Public Schools

David R. Johnston, Principal,
Adams School, Abigail Avenue,
Quincy, Massachusetts 02109

Phi Delta Kappan, September, 1967 contains description of PLAN by Dr. John Flanagan, President, American Institutes for Research, 135 N. Bellefield Avenue, Pittsburgh, Pennsylvania 15213

Time:
Beginning: September 1967
Ending: 1971 (?)

10-258-3 Draft Edition

ITEM	USE	DO	SELF-CHECK	DONE
6.	Our Language Today, Book 5, by Conlin.	1. Read pp. 303-306.	Name two characteristics of myths. 1. The origin of a myth is usually not known. 2. Stories that explain processes of nature or beliefs about religion.	
	Open Highways, Book 6, by Evertts.	2. Read p. 195 in Open Highways.		
	Tape #20	3. Listen to tape, "The Story of Daphne." When finished, answer questions on I.G. If you need to refer to the story, you may find it in Robert's English Series, Book 4, pp. 65, 72 and 79.		
	Robert's English Series Book 4 Instructional Guide			
	Crossroads, by Evertts.	4. Read "King Midas' Ears," on p. 48. Answer questions on I.G.		
	Crossroads Workbook, by Evertts.	5. Read the myth on p. 16. Do the first set of exercises on p. 17. You do not need to do ex. 22-27. Do ex. 1 at the bottom of the page.		

Quincy . . . plus 30 selected school systems . . . cooperating with major national and local economic councils . . . participates in developing and implementing an economics curriculum . . . for kindergarten through senior high school.

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

Project DEEP

Why is This Project Needed?

Economics deals with the production, distribution and consumption of wealth. Wealth is riches or worldly possessions. To most of us this becomes a matter of money - a force we must have in order to be a part of our society. To a considerable extent money governs what we do - it is a base, usually our job, upon which we build our lives, educate our family, acquire material goods, etc. But, interestingly enough, until this project, almost nothing had been done in public education to give students a grasp of the way our economic system is organized and how we relate to it. The DEEP curriculum provides that all students can learn to understand the skeleton of our economic system and can develop a frame of reference into which they can place the problems of an economic nature that demand serious consideration because of their personal, political, or social significance.

What is the Purpose of DEEP?

The Developmental Economic Education Program is affiliated with the Joint Council on Economic Education in New York and the New England Council on Economic Education centered at Boston University. Its purposes are:

- To build economic understandings into school curricula at all levels
- To improve teacher preparation in economics
- To develop and evaluate new teaching materials for all levels
- To disseminate the results

Which means that for the *individual* student these purposes would:

- Expand his general education through increased awareness of the economic environment
- Influence his personal economic well-being
- Demonstrate his buying power effect on the economy
- Demonstrate the impact of the voting booth on the economy
- Enable him to be more productive through the allocation of his own time and resources
- Demonstrate to him the impact of economically productive people on the well-being of society

How Was the Curriculum Constructed?

In 1964 some 100 Quincy teachers joined an in-service course on economic education sponsored by the New England Council. Subsequently, Quincy joined 30 pilot-type schools geographically scattered throughout the nation which were selected to work with consultants furnished by affiliated Councils. Through this network arrangement were funneled and constructed the ideas and objectives of a proposed economic education curriculum.

Quincy's contribution to DEEP involved the Massachusetts Fields and Lincoln elementary schools all Junior High Schools and both Quincy and North Quincy High Schools. The faculty of the elementary schools prepared an experimental teacher's guide that was adapted to the social studies curriculum. At the junior high school level, an inductive course of instruction entitled "Comparative Economic Systems", prepared by Carnegie Tech, was introduced to ninth grade college preparatory students. The senior high schools planned economic units as part of Project ABLE (see Trend Supplement #1). Project DEEP concentrated on the development of the elementary guide during the first 3 years. As of June 1968 materials produced during this time have been tested and revised. In addition, the involved schools have used Quincy's publication entitled, "It's Elementary - It's Economics". Sample resources covered by this document include:

Grade 1 Since resources are limited, man must make choices regarding their use.
Production is dependent upon land, labor and capital.

Grade 2 Scarcity is the basic economic problem in all societies because man has virtually unlimited needs and limited resources to satisfy his needs.
Human resources and their development are one of the basic elements in the growth and prosperity of our economy.

Grade 3 Man has many more wants and needs than can be supplied by his available resources.
Capital resources are essential to the production of goods and services.

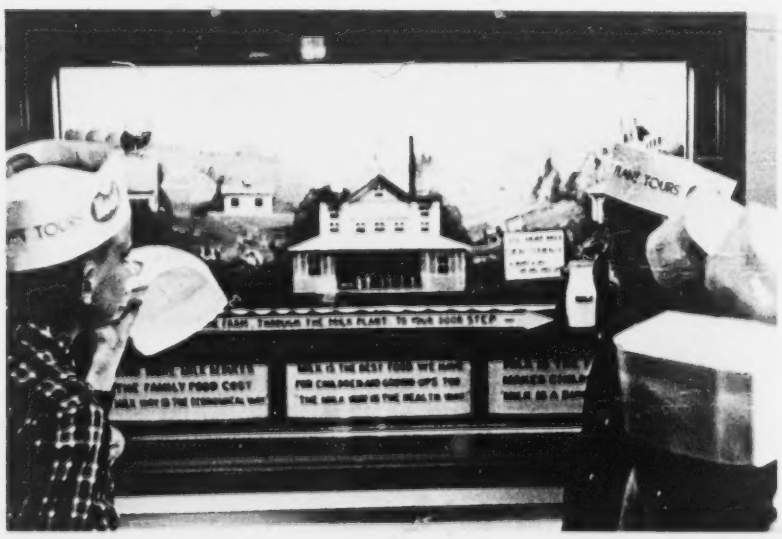
Grade 4 Productive resources are land, labor, and capital.
The development of a market economy is another way to ease the problem of scarcity.

Grade 5 Trade between local and regional areas is created because of relative scarcity of some resources.
International trade is created between nations because of the needs and skills of the world's peoples, different climates, and natural resources.

Grade 6 Money serves as a medium of exchange.
International trade comes into being in order to help supply basic needs and wants.

Is the Project a Success?

Participating teachers have found the topics well received by children. The relevancy of the curriculum seems responsibile for most of the enthusiasm - candy, tonic, and ice cream, after all, still require money! Quincy continues to test its high school students with the "Test of Economic Understandings" in order to evaluate over-all effectiveness. As with all school programs it will take several years for any accurate measure of its relative success. However, it seems obvious that the desirability of including economics as a course of study is confirmed. The developmental phase of Project DEEP will continue and refining improvements will be made.



STATISTICS

Official Title:
Developmental Economic Education Program.

Funding:
Quincy Public Schools Original grant from Joint Council on Economic Education was $3,000.

Budget:
Funds expended through library services and teaching aids to special category assigned.

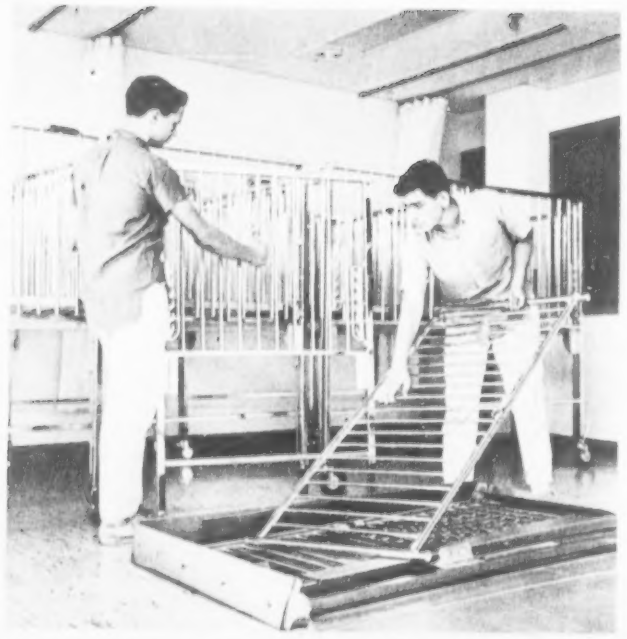
Staffing:
Part time coordinator.

Pupil Population
About 4,000

Materials:
Developed and published by project staff.

References:
Joint Council on Economic Education, 1212 Avenue of the America, New York, New York 10036
New England Council on Economic Education, Boston University, Bay State Road, Boston, Massachusetts 02215
Project DEEP, Quincy Public Schools, Coddington Street, Quincy, Massachusetts 02169

Time:
Beginning: 1965
Ending: Continuing



a school program to help youths from low income families stay in school . . . earn money for family needs . . . gain work experience . . . develop skills

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

NEIGHBORHOOD YOUTH CORPS

Purpose of the Youth Corps

The underlying need for establishing the Corps was based upon a humanitarian concern – to help school alienated youth, principally those from economically depressed homes, to improve their self-image about the school and the community and to increase their desire to become a productive part of both.

The "In-School" program helps young people earn additional money in order that they can remain in school. At the same time they gain work experience, develop basic skills, and learn how to deal with responsibility. Through its counseling service the Corps provides each enrollee an association with whom he can identify.

The "Out-of-School" program aims towards increasing the employability of those not working while motivating others who may have left school prematurely to return. When return to school is not feasible, an attempt is made to improve motivation and work habits that will lead them to vocational training and to permanent jobs.

How does the Program Operate?

Jobs are provided on a part or full time basis for which enrollees are paid. In each case the service to be rendered is one that would not ordinarily be provided by an existing staff, thus a specific contribution, (recognized by the community as well as the enrollee) is made. Work sites are carefully selected and located in various city departments and in non-profit organizations – such as the Red Cross, Y.M.C.A., and United Cerebral Palsy.

A counselor is then assigned who discusses with each enrollee, using a case work approach, his problems and plans for the future. The enrollee's counselor and work supervisor are selected to provide suitable identification figures.

Through counseling and testing the enrollee is helped to recognize and develop positive attitudes which lead to follow-up assignments, training programs, and other forms of continuing education. Those youths who are physically, economically, culturally, and emotionally handicapped are indentified and sent to the appropriate service agencies. In addition, the community doors opened through a comprehensive public relations campaign. Talks are given to service organizations and educational officials in order that they may better understand the enrollee problems. In some cases programs and services are altered to meet the enrollee's needs.

educational officials in order that they may better understand the enrollee problems. In some cases programs and services are altered to meet the enrollee's needs.

The opportunity to earn money enables members to allieviate personal hardship.

It is hoped that as a result ot these total efforts, the Neighborhood Youth Corps provides a service to the community – as well as having the community service the youth – thus making the rnrollee's social and educational environment more relevant.

Is the Neighborhood Youth Corps a Success?

The Corps has continued to receive endorsement and funding from the Federal government.

A long-range evaluation has been made in cooperation with the Division of Employment Security through follow-up interviews.

Mailed questionnaires have also been used to find out how effective the role of the Corps has been in the areas of attitude improvement,

motivation, and job success. A review of this kind of sampling indicates that positive things *have* happened to most enrollees.

STATISTICS

Title:
Quincy Neighborhood Youth Corps Counseling, Work Training & Experience Program.

Source of Funding:
Title I-B of the Economic Opportunity Act (Public Law 88-452). Funds are distributed through the Regional Office of the Bureau of Work Programs, United States Department of Labor, and is locally sponsored by the Quincy Schools.

Budget:
Total Federal funds received to date are $441,425.75. Of total funding 90% is provided by Federal and 10% by Local government. The annual funds received are in excess of $100,000.

Pupil Population:
In-School program: youth in grades 9 through 12. No. serviced to date: 340.The Out-of-School program: youth from low income families who are 16 through 21 years of age, unemployed, out of school for at least three months of normal school year, and not planning to return to school. No. serviced to date: 222.

Materials:
These depend on work station site. Enrollees utilize and receive instructions on use of a variety of clerical, mechanical, and agricultural materials in accordance with their ability to perform work station tasks. Labor Department regulations prevent instructions on, or use of equipment listed under hazardous occupations (Child Labor Bulletin # 101, United States Department of Labor.)

References:
Work Supervisors Handbook. Neighborhood Youth Corps, United States Department of Labor, September 1966.
Earn Learn & Serve. Neighborhood Youth Corps, United States Department of Labor, Manpower Administration, January 1965.
Counseling Service for Unemployed Youth. Bingham, William C., Manpower Training Service, Center for the Study of Unemployed Youth, Graduate School of Social Work, New York University. 1967.
Tips. Remedial Education for NYC Enrollees.

Time:
Beginning: May 1965
Ending: Continuing

Modern learning requires a diversity of resource materials . . . print, films, tapes . . . consequently, media centers, directly "involved" in the learning process, have expanded the role of libraries.

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ADAMS SCHOOL MEDIA CENTER

6

Introduction

Recent trends toward individualization in education have led to the expansion of the role of school libraries. Modern learning requires that a diversity of materials be available to students and teachers, and that programs be established to foster effective use of these materials. Thus, school libraries which once only housed books and whose primary activity was research. have evolved into the concept of media centers. Media centers house a variety of materials in all media, both print and non-print, and the media center staff is directly involved with teachers and pupils in the learning process.

What is the Purpose of a Media Center?

In order to help prove the effectiveness of this concept, the Bureau of Library Extension of the Massachusetts Department of Education set up five demonstration center grants throughout the Commonwealth in February, 1967. The grants were funded through Title II of the Elementary and Secondary Education Act of 1965. The Adams Elementary School in Quincy received one of the grants because of the interest in the Individual Progress Plan which was being developed under the guidance of Mr. William Phinney, then principal. The Individual Progress Plan is a theory of individualization which seeks to foster a positive self-image within each child, which provides for each child's continuous progress in learning at his own rate according to his own ability, and which tries to encourage each child to assume responsibility for his own learning. Concurrent with the Title II Demonstration Center Grant, the Adams' record of innovation caused it to be selected as the pilot elementary school for Project PLAN, an experimental program utilizing computer facilities in connection with Westinghouse Learning Corporation and American Institute of Research. (See Supplement # 3)

How Does the Center Function?

The auditorium renovation was designed to accommodate a number of different activities which involve many types of equipment. The prime function was to develop a learning center in which children are free to explore and discover, either individually, or in groups. The Media Center can accommodate up to 90 pupils at a time (or almost one fourth of the school's enrollment). It functions on the premise that all materials and equipment are accessible for teacher and pupil use. Therefore, everything circulates; audio visual materials and equipment as well as books and periodicals.

How Were the Materials Selected?

Selection of materials was a cooperative effort by the media specialist and classroom teachers. Initially the need was to build a strong, well-balanced, basic collection. Seventy percent of the first $25,000 purchased printed materials, the other 30% audio visual materials. By the second year of the grant the collection was near enough to American Library Association Standards to warrant a shift in percentages. Sixty percent went toward print materials and 40% for AV materials.

A major consideration in the selec-

tion was Project Plan. Materials which enhanced or directly supported the behavioral objectives written for the Teacher-Learning Units created for PLAN always received priority. Nevertheless, selection committees took advantage of the generous budget to experiment with games, manipulative learning aids, and programmed reading materials.

How is the Center Staffed?

The staff consists of one media specialist and clerk. Arthur Gillis was the first media specialist. Miss Barbara Crowley assumed the position in October, 1968. Under Miss Crowley's tutelage fifteen graduate students from a Work-Study Institute in School Librarianship at Boston University have each spent eight weeks training at the Center. Though "students" they were experienced classroom teachers on leave from their school systems to learn "on-the-job" how to become media specialists.

Conclusions and Recommendations

David R. Johnston, principal of the Adams School, considers the Media Center essential to the continued operation of the Individual Progress Plan. The Adams Demonstration Media Center effort seems to indicate that children can assume considerable responsibility for their own learning when the program is skillfully planned so this can happen and the resource materials are available. We have learned that effective utilization of such a large number of materials calls for careful organization in conjunction with "in-service" training for teachers. The most important consideration is that the learning environment created within this kind of a Media Center is essential to an effective modern elementary school.

STATISTICS

Title:
Adams School Media Center (Demonstration Center Grant Project)

Source of Funding:
Public Law 89-10, Title II — Elementary and Secondary Education Act of 1965

Budget:
1967 — $25,000
1968 — $25,000
Local share — equipment. furnishings, remodeling of school auditorium.

Staffing:
1 Media Specialist
1 Clerk Typist

Pupil Population:
384

Materials:
Commercial

References:
William L. Phinney
Assistant Superintendent
of Schools — Instruction
Quincy Public Schools
Quincy, Massachusetts

Mrs. Denise Erwin, Director
Department of Library Services
Quincy, Massachusetts

Beginning:
April 28, 1967

Ending:
June 30, 1968
Media Center continues as Demonstration Center for 1969, without funding.

special help with homework or the opportunity for cultural enrichment is provided the less privileged . . . "after school"

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

Project: NEIGHBORHOOD SCHOOL CENTER

Introduction

Some children are deprived of opportunities to participate in activities considered normal for most. This frequently happens with those who come from homes of less than average income. Because this unfortunate circumstance denies equal educational opportunities for all, the principal of the Quincy Point Junior High School, and members of his staff, suggested a proposal to the federal government - that it would be feasible to establish an innovative school program — "after school".

Because this school district qualifies for special consideration as a Title I area — where many families have incomes below $2,000 a year — the project was approved and Title III funds were made available to initiate and operate the Neighborhood School Center from 3 P.M. to 6 P.M. daily.

What are the Program Objectives?

The major objective was to provide housing for daily "after school" activities of children. A supervised place that would serve for doing homework or study — where a student could pursue a particular interest of his choice from a wide variety of activities not normally included in the regular curriculum. Some of these activities are "remedial" in nature (to help the student having difficulty with math!) — some cultural (for the student wanting to try his hand at the potter's wheel)! — and others recreational (for those who would play golf or try archery!)

Because of the voluntary nature of participation the activities themselves act as prime motivation for personal involvement. The expected changes of behavior principally rest in the enhancement of the child's self-image. Through direct experience he can develop pride in himself — consequently his community image is improved and he takes pride in his school. Also - by continual encouragement and reinforcement from the professional staff his imagination can expand.

The ratio of staff to student is small allowing each child to become recognized as an individual. His activities are tailored toward supporting this impression. Because self-expression is basic to image improvement the center affords open studios in art, music, and drama.

Every attempt is made to establish closer home-school understandings. Occasions for family involvement have been encouraged resulting in several delightful evenings when father-son and mother-daughter events saw them enjoying common interests.

Special Resources Are Provided

The school library is open-as well as the study rooms used by teachers for extending special remedial or enrichment help.

Swimming has been accommodated early Saturday morning to take advantage of the YMCA pool. Some boating and sailing activities have been planned for Saturday mornings to cooperate with the city recreation department.

Activities are not allowed for pupils who will have them in the regular school program.

Supplement to School Trends - Official Publication of the Quincy Public Schools - Quincy, Massachusetts

Schedule of Activities

Hourly periods: Guitar, Piano, Tutoring in Arithmetic and Reading, Typewriting.

Hour and One-Half Periods: Archery, Shuffleboard, Table Tennis, Chess, Golf, Gymnastics, Weight-lifting, Model-making, Swimming, Tennis.

All Afternoon: Acrylics, Arts-Crafts, Boating and Sailing, Ceramics, Cooking, Dramatics, Oil Painting, Photography (and Developing), Sewing, Shop, Trips. (Most popular activities are: Arts and Crafts, Ceramics, Cooking, Dramatics, Guitar, Gymnastics, Sewing, Shop (for Boys and Girls), Trips, Tutoring, Typewriting, Weight-lifting, Horseback riding)

Additions 1967-68
Boating and Sailing, Swimming, Mother-Daughter Sewing, Father-Son Shop.

Additions 1968-69
Parent-Child Evening Ceramic Classes, Horseback Riding.

Evening Demonstrations Held for Parents 1966-67
Handwork Display, Play:"Cheaper by the Dozen", Gymnastics.

Evening Demonstrations Held for Parents 1967-68
Handwork Display, Play:"Oliver" (Secondary Students), Play: "Wizard of Oz" (Elementary Students)

STATISTICS

Title:
Neighborhood School Center

Source of Funding:
Public Law 89-10, Title III

Budget:

First year grant	$47,375.72
Second year grant	51,170.00
Third year grant	37,901.00
	$136,446.72

Staffing:
1 Director
1 Librarian
1 Counselor
3 Nurses (alternate)
30 Teachers (part-time)
3 Parents
1 Student
1 Clerk
1 Custodian

Pupil Population:
582

Materials:
Commercial

References:
Theodore R. Silva, Principal
Quincy Point Junior High School
Edwards Street
Quincy, Massachusetts

Beginning:
November 1966

Ending:
August 31, 1969

restructuring "attitudes" to receive new ideas creates an important dilemma in human relations . . . the focus of this cooperative effort

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Project: Q-PED - COPED

Introduction

How does a school system become a self-renewing social institution staffed by self-renewing individuals? The participants in this project have been exposed to education which aimed at producing greater awareness of one's self, heightened sensitivity to others, and more meaningful participation in group activities. Through frequent opportunities to stop — and "feedback" the actions of small groups — the participants, under the leadership of a human relations expert, have become more sensitive to their role and roles of others in attacking common problems. This approach to "in-service" education is a major innovation in helping people called upon to work in concert.

Organization and Purpose

The project in Quincy was organized and implemented by a fifteen member comittee composed of teachers and administrators under the leadership of Dr. Lawrence P. Creedon, Mr. Arthur C. Gillis, and Mr. William L. Phinney.

They turned to Dr. Kenneth Benne and Mrs. Miriam Ritvo of the Human Relations Center at Boston University for assistance with the development of Q-PED — Quincy Project for Educational Development. Ultimately, it affiliated with the U.S. Office of Education-funded COPED — Cooperative Project for Educational Development. This national, inter-university project, committed to joint inquiry and collaborative action among the human relations experts from eight universities and the participating school systems, focused upon determining how planned change could best take place in schools. As such it functioned as "a forum for conceptualizing about, studying, and developing models for bringing about improvement in education."

Involvement of Staff

During the winter of 1965, groups of 50 teachers and administrators participated in a series of day-long seminars, held on released time, to consider the question. A two-day educational retreat followed the seminar series. During the summer several volunteer groups continued to dialogue.

In the next school year an additional 100 teachers took part in a repeat of the seminar-retreat program. Also, two bi-weekly seminars were held, one for principals and the other for teachers. By the end of the second project year 400 Quincy educators had been involved.

Was the Project a Success?

The single purpose of Q-PED was to create a *climate for change* within the school system. Such an attitudinal change is difficult to measure statistically, but perhaps reference to some of the changes in Quincy since its inception may reveal a partial answer. In March 1967, the Quincy Education Association and the Quincy School Committee concluded a comprehensive collective bargaining contract that the Massachusetts Education Association has hailed as a model!

Another indication of the success of Q-PED came toward the close of school in 1967 when the U.S. Office of Education invited Quincy to be one of the 17 school systems from across the nation to participate in Educational Systems for the Seventies (ES-70), a major effort aimed at reconstructing education at

the secondary level in accordance with behavioral analysis.

It is too soon to say whether the climate for change developed by Q-Ped will be a lasting one, at this time all signs seem to indicate that it will be.

STATISTICS

Official Title:
Establishing a Climate for Change (Q-PED - COPED)

Funding:
School Department, Quincy Education Association, Lt. Simon-Paul Gutman Foundation of Temple Israel of Boston, U.S. Office of Education.

Staffing:
Quincy Teachers, Administrators and Professors from Boston University.

Population:
400 Teachers and Administrators.

References:

Dr. Lawrence P. Creedon
Superintendent of Schools
Quincy Public Schools

William L. Phinney
Assistant Superintendent of Schools-Instruction
Quincy Public Schools
Coddington Street
Quincy, Mass. 02169

Bennis, Warren G., Benne, Kenneth D.; Chin, Robert, *The Planning of Change*, Holt, Rinehart & Winston, N.Y.: 1962.

Carlson, Richard, et al, *Change Processes in the Public Schools*, University of Oregon, 1965.

Creedon, Lawrence P., King, Margaret O., *NEA Journal*, Washington, D.C., p.29, March 1968.

Gardner, John, *Self Renewal*, Harper & Row, N.Y. 1966.

Watson, Goodwin, *Concepts for Social Change*, National Training Laboratories, NEA, Washington, D.C. 1967.

Watson, Goodwin, *Change in School Systems*, National Training Laboratories, N.E.A., Washington, D.C., 1967.

Time: Beginning: 1965
Ending: 1968

A more comprehensive program of diagnosis, guidance, and education . . . for handicapped children . . . in special classes.

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

Project: HANDICAP

Introduction

The disadvantaged child is the focus of Public Law 89-10 Title 1. The handicapped child was included in the definition of disadvantaged. The group of children being served by Project Handicap are those children educationally disadvantaged because of a diagnosed handicap. They are enrolled in special classes located in various school buildings throughout the city. The handicaps included are low mental functioning as assessed by an individual pschometric test, physical disability or cerebral palsy as diagnosed by a doctor.

What is the Purpose of Project Handicap?

It is to provide a more comprehensive program to meet the needs of handicapped children.

The specific educational needs which this project has been designed to meet are:

1. Coordinate the planning and operating of a comprehensive educational program for handicapped pupils in Quincy.
2. Specify the educational needs of each handicapped child diagnosed through team evaluation and planning. (Early identification and diagnosis to set in motion appropriate stimulating experiences to raise the "functional intelligence.")
3. Meet the needs of handicapped pupils and their families for guidance services. (Research has shown that if a handicapped child is expected to make progress it is necessary for the school to work with parents and siblings)
4. Provide instruction in functional skills such as language, aesthetic and survival skills.
5. Meet the needs of teachers in special classes for help in the form of teacher aides and materials.

How is Handicap Organized?

Specifically, Project Handicap provides for (1) a coordinator of the program for the handicapped whose major duties are to assume the responsibility of constant effort to provide the best possible education for handicapped children and to coordinate team efforts for unified action in behalf of each child —
(2) A social worker whose function it is to acquire data that would be helpful to a fuller understanding of the handicapped child and his family, aid the teacher in her effort to help the child in self-understanding and adjustment, and aid the parents to understand the aims of the educational program by enlisting their interest and support —
(3) Five teacher assistants who provide teachers with extra help so that they may in turn provide more adequately for the individual needs of the handicapped child and —
(4) Educational experience outside of the classroom. Handicapped children need many concrete and vivid experiences to learn vital principles. Approximately $6.00 per pupil has been alloted to each teacher to be used to provide educational trips.
The team referred to in Project Handicap has as its basic group the coordinator, social worker, school psychologist and a teacher. Meetings are held regularly once a week

at which time case studies are discussed; other disciplines and agencies are contracted or consulted; guidance contacts and procedures are decided upon; and suggestions are made as to special techniques of instruction to be tried. Monthly in-service meetings with teachers and staff are held to explore problems or interest areas in special education and to discover ways of implementing better education.

Is the Project a Success?

The success of Project Handicap may be found in the fact that it made possible a more satisfying program for handicapped children from the primary grades, through high school to graduation. The number of dropouts at age 16 of handicapped children decreased measurably. There is a better understanding by school personnel of the strengths and potential of the handicapped child. Teachers are enthusiastic about having guidance services available to aid in working through social and educational problems met more frequently when dealing with handicapped children. Teachers are also grateful for the aid of teacher assistants and are most reluctant to do without such help. Children always enjoy and seem to profit from the new experiences they gain from excursions into the community.

Recommendations

The teachers of handicapped children would recommend more teacher assistants so that individual instructional needs of handicapped children could be better served. More specialized equipment and materials such as audio-visual equipment (including teaching machines) as well as other programmed materials are needed.

STATISTICS

Official title:
A More Comprehensive Program of Diagnosis, Guidance, and Education for Handicapped Children in Special Classes

Source of funding:
Public Law 89-10 Title 1

Budget:
1968-69 – $24,000

Staffing:
1 Coordinator (full time)
1 Social Worker (part time)
1 Vocational Counselor (part time)
5 Teacher Aides
18 Teachers

Pupil population:
236 Ages 7-20 (20 special classes)

Materials:
Commercial

References:

Dr. Lawrence P. Creedon
Superintendent of Schools
Quincy Public Schools

Mrs. Frieda Dirks, Coordinator
Project "Handicap"
Quincy Public Schools
Quincy, Massachusetts

Beginning: April 1, 1966

Ending: continued

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

ADULT BASIC EDUCATION

10

A program designed to help adults achieve basic learning skills or earn a high school equivalency diploma

Introduction

In the Quincy area there are approximately 3,500 under-educated adults. It is the purpose of the ABE Program to serve the critical needs of this group to develop the basic skills necessary for functioning as responsible citizens: economically, politically and socially.

The Adult Basic Education program, known as ABE, is funded under the Adult Education Act of 1966, and operates at the Norfolk County House of Correction in Dedham, Massachusetts as well as the on-going Community ABE program in Quincy.

Free High School Equivalency Diploma Preparation

As part of the Quincy Adult Basic Education Program, preparation is offered for taking the High School Equivalency Examination. The Equivalency Diploma may enable Quincy and other South Shore residents to get a job, earn a promotion, enter college, apply for Civil Service, or upgrade their current occupation. This preparatory program is offered at no cost to participants.

Instructors assist participants in individualized preparation for the High School Equivalency Examination (GED tests).

The program is a continuous operation every Monday and Wednesday evening between 6:30 and 9:30 P.M. at the Quincy Vocational-Technical School.

Individualized Program Stressed

At the Norfolk County House of Correction, and at Quincy's local ABE program provisions are made to identify specific skill weaknesses for each participant and to implement an individualized program. This will be based upon the *needs, learning rate* and *style* of the individual learner.

Extensive use is made of multi-media equipment coordinated with multi-level materials. The employment of these techniques by the specially trained and selected staff of Quincy teachers results in a strengthening and broadening of the teacher in ABE teaching as well as regular classroom teaching. In this way personnel selected to participate in the ABE programs are highly qualified. Selected candidates undergo an intensive three semester-hour course in the techniques and practices of Adult Basic Education as authorized by the Massachusetts Department of Education. In-service workshops are also conducted on the local level as the ABE program is in operation.

Evaluation

Guidance councilors carry out testing procedures and use interview techniques to help insure effectiveness of the different approaches being used. They also maintain inventories containing personal data and achievement.

Additional measures have been taken to provide outside consultant services for evaluation of the ABE program through the Massachusetts Department of Education.

(Statistics, over)

Supplement to School Trends - Official Publication of the Quincy Public Schools - Quincy, Massachusetts

STATISTICS

Official title:
Adult Basic Education

Source of Funding:
P.L. 89-750 1966

Budget:
1967-1968 — $23,579.00
local share — 2,619.00
To date the total budget expended is $56,775.51
1968-1969 — $18,393.90

Staffing:
(all part time)
1 Coordinator
ABE held in Quincy:
4 teachers
1 guidance councilor
1 clerk
ABE held in Norfolk House of Correction in Dedham:
3 teachers
1 guidance councilor
1 clerk

Materials:
Purchased from commercial sources

Student Population:
1967-1968 150 students

References:

Dr. Lawrence P. Creedon
Superintendent of Schools
Quincy Public Schools

Mr. Edward J. Hannon, Coordinator
Adult Basic Education
Quincy Public Schools
Quincy, Massachusetts 02169

Beginning: 1966
Ending: Continued

a vocational re-training program that increases selective job opportunities for the unemployed and those adversely effected by obsolescent skills

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

MANPOWER DEVELOPMENT TRAINING ACT

II

Introduction

Most of the technologically oriented industries in our country, including those in and around Quincy, continually install modern equipment and adopt more efficient production methods in order to improve their competitive market position. In so doing, however, they create certain employment adjustments which adversely effect the skilled worker — he may suddenly find himself without a job! In other situations he may find his earning hours shortened or he may be transferred to less skillful tasks that reduce his income.

To overcome this serious employment problem our government initiated the Manpower Development and Training Act. Designed as a cooperative endeavor it includes state and local public vocational agencies and the division of employment security.

The initial act, which began in 1962, has been broadened to include: re-training opportunities for unemployed workers, for those working below their skill capacities, for those working substantially less than full-time (or who *will* be working less than full-time) and for those whose skills are becoming obsolete as well as for youths who require training in occupations in which there is proven opportunity for employment.

On a national scale the goal of MDTA is to provide for adequate occupational development and maximum utilization of workers. In other words, full employment.

How are trainees selected?

The first priority of persons to be trained goes to those who are unemployed. Then priority is extended to persons to be trained for skills needed first in their *area* of residence, and second, in their *state* of residence. Among other persons selected are workers who are under-employed and those who are employed full-time but who have the capacity and desire to "up-grade" or "up-date" their skills. The minimum age for eligibility is 16, male or female, and out of school.

What is the training procedure?

Potential trainees apply to their Quincy public employment office. There they are interviewed, counseled, and in some instances, tested to determine their interest, suitability, and aptitude for occupational training. The occupations for which training is provided are those in which labor shortages are known to exist. Those selected are referred to a specific vocational training course. The length of the training period varies according to the amount of skill that needs to be taught.

The curricula has been developed by Massachusetts vocational education authorities who are also responsible for providing space, equipment, and instruction. In Quincy the same space, equipment, and materials used in the regular Vocational-Technical School program is used by MDTA trainees.

The progress of each trainee is followed closely. If he does not maintain a satisfactory attendance record or does not make suitable progress in his course, he may be dropped from the program. Those who complete a course of vocational study return to the employment office for placement service.

To assure employment success MDTA expects, in addition to skill improvement, that trainees will make improvements in their appearance, attitude, and work habits.

Supplement to School Trends - Official Publication of the Quincy Public Schools - Quincy, Massachusetts

Trainees who are school drop-outs and have experienced employment difficulties caused by low reading comprehension skills receive special instruction.

What are the training allowances?

The act provides for payment of weekly allowances to those considered eligible by the Department of Employment Security. Generally, the weekly training allowance will be an amount equal to the average weekly unemployment insurance payment in the State (including dependents' allowances) for total unemployment during the most recent quarter for which data is available. In no event will a trainee be penalized financially for being enrolled in training.

How is the faculty selected?

Instructors must meet the requirements of the Massachusetts Department of Education, Bureau of Vocational Education (eight years employment in the occupation, 2 years teacher training courses). The staff is usually selected from the Quincy Vocational-Technical School faculty.

Is the MDTA program succeeding?

The rate of job placement has clearly indicated that the program is effective in meeting its objectives. A survey of trainees in Massachusetts has yielded some impressive results. Of those who had been laid off and took some form of vocational training and were successfully re-employed — the average increased their yearly income by 35%.

300 OCCUPATIONAL PROGRAMS HAVE BEEN APPROVED INCLUDING

Arborist
Assembler, Electrical
Auto Mechanic (entry)
Automobile Body Repairman
Baker (entry)
Basic Education (youth)
Calculating Machine Operator
Chef (entry)
Clerk, General Office
Clerk-Stenographer
Clerk Typist
Cook (entry)
Custodian
Dental Assistant
Appliance Serviceman
Electronics Mechanic
Engine Lathe Operator
Floral Designer
Grocery Checker
Grounds Keeper
Inspector (machine shop)
Landscape Gardener
Licensed Practical Nurse
Machine Operator (entry)
Meat Cutter
Medical Laboratory Assistant
Metal Fabricator
Milling Machine Operator
Offset Pressman
Oil Burner Serviceman
Outboard-Motor Repairman
Sheet Metal Worker
Salesman (entry)
Sewing Machine Repairman
Surface Grinder Operator
Telegraphic Typewriter Operator
Television Repairman
Tractor Mechanic
Upholsterer
Veterinary Attendant
Waitress
Watch Repairman
Woodworking Machine Operator

STATISTICS

Official Title:
Manpower Development and Training Act.

Source of Funding:
Office of Health, Education, and Welfare Title II, MDTA Act, Section 231

Budget:
In operation 1968-69

Practical Nurse (20)	$30,249
Auto Body Repair (20)	24,968
Production Machine Operator (20)	17,514
Cook Chef Apprentice (20)	4.619

Additions 1969

Auto Body Repair (16)	15,675
Adult Basic Education (24)	23,191
Nurses Aides (20)	5,822
Total 1968-69	$122,038

Staff:
1 Coordinator
2 Instructors (full-time)
8 Instructors (part-time)
2 Tool Room Attendants
1 Clerk (part-time)

Population:
Total Trainees to date — 1,539
Number of Graduates — 1,052

Materials:
Commercial

Equipment:
Quincy Vocational-Technical School

References:
Dr. Lawrence P. Creedon
Superintendent of Schools
Quincy Public Schools

Mr. Edward Hannon, Coordinator,
Adult Vocational
Education Program
MDTA Quincy
Quincy Public Schools
Quincy, Massachusetts 02169

Mr. Kenneth Vining, Manager
Division of Employment Security
Quincy, Massachusetts

Time:

Beginning: 1963

Ending:
Continuing on basis of job placement opportunities.

a network of school systems is formed
to set goals
improve the education process
develop new curricula

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

ES-70

EDUCATIONAL SYSTEM FOR THE SEVENTIES

12

How is ES-70 Organized?

In May 1967, representatives from the U.S. Office of Education met with superintendents from 15 selected school systems (presently 18 school districts in 15 states) and established a school network which would cooperatively plan and implement broad changes in curricula reorganization.

The overall effort is designed to employ a refined diagrammatic time/line scheduling procedure called the "systems approach". It involves *"input-process-output"* factors originally devised by the aero-space industry to precisely meet their multiple-production deadline headaches.

Toguide the development of the network a formal corporate organization has been established. Each district is resented on the Governing Board by their superintendent. The Board also includes Chief State School Officers of member states, and representatives of the U.S. Office of Education. Adopted policies have also established an Executive Committee of 6 superintendents selected by the governing board, 2 state designates and 2 representatives of the Office of Education appointed by the Commissioner. Each school system has appointed its own coordinator who is responsible for all local activities related to the network. Stewart Sargent is the ES-70 Coordinator for the Quincy Public Schools.

Why is ES-70 Needed?

The shortcomings of present-day education indicate a major need to redefine goals and thereby re-direct the educational process. The *relevance* of what students are expected to learn is an issue. Motivating students to *want* to learn and recognizing the need to provide them the opportunity for a more "individualized" education are other important concerns. Though technology has provided students and educators new means to innovate changes in scheduling and make drastic improvements in communication through the use of electronic/photographic devices — only token efforts are being made to realize their classroom potential.

Though "learning" continues to remain more an art than science a torrent of new knowledge is coming from educational research that seems to indicate a need to evaluate present teaching practices. In particular, the behavioral psychologists have arrived at new levels of specificity in developing a series of measurable steps that serve to lead a student through the skills and knowledges he is required to have to reach certain performance objectives. This is seen to be particularly appropriate for vocational technical education. (See Supplement # 1)

What Does ES-70 Hope to Accomplish?

Generally states as "objectives" the *general purpose as it defines curriculum* would be – (a) Integrate academic and vocational learning by using job preparation as one of the ways to teach the basic learning skills. (b) Expose students to an understanding of the "real world" (c) Train students in a core of generalized skills (d) Orient students to attitudes which go with success in work and life (e) Provide a background of understanding about economic and civic institutions (f) Make the students aware that learning is *life*-oriented (g) Help students cope with a changing world of work (h) Create within students a sense of self-reliance and awareness which leads them to an appropriate and realistic career.

Other purposes concern themselves

with – how do you deal with a variety of complex questions which arise from a radical remodeling of the curriculum and — how does this relate directly to the problem of developing within the teaching staff a tolerance for the climate of turbulence associated with change.

The overall hope of accomplishment rests on the expected development of an integrated comprehensive curricula — with special attention on the secondary schools.

In broadest terms the development of substantive programs for ES '70 may be divided into 4 categories. They include:

A. Staff Development
   1. Professional Pre-Service
   2. Professional In-Service
   3. Non-Educational Professional Utilization
   4. Sub-Professionals

B. Instructional Management and Career Guidance
   1. Educational Objectives
   2. Cluster Arrangements of Vocational Careers
   3. Curriculum Development
   4. Instructional Material
   5. Instructional and Learning Media
   6. Modular Scheduling
   7. Individualized Instruction
   8. Guidance Progress and Procedures
   9. Reduction of failures

C. School Management
   1. Staff Utilization
   2. Information Handling
   3. Increased Efficiency in Communication
   4. Simulated Decision-Making in On-Line Situations
   5. Scheduling Progress, and Accounting for Pupils
   6. Budgeting Fiscal Accounting, Personnel Records
   7. Modification of Existing Plant
   8. New Structures

D. Evaluation
   1. Student Assessment
   2. School Accreditation
   3. Use of Data Processing in Evaluation
   4. Student Certification
   5. General Evaluation of Educational Progress

The Network has an Information System

The collection – as well as the processing, synthesizing and distribution – of data on the progress of the network programs is regarded as essential if the program objectives are to be achieved. To help these flow together in logical fashion, it has been agreed to initiate an information system that will serve each school district member to share the problem definitions, processing and communication criteria, as well as descriptions of the evolving series of programs. Newsletters will be issued as well as films and progress reports. Communication tools and techniques, successfully used in many large-scale systems development projects in business and industry, can be adapted to the unique requirements of a complex social organization as education.

Summary

The network was formed to devise and execute a program that

- provides an individualized education for each student
- is highly relevant to the adult roles which he will play
- is economically practical within available public resources
- is based on behavioral and related sciences
- employs suitable systems of school organization
- utilizes appropriate educationally oriented technology
- is locally planned and directed
- is nationally coordinated
- is financed by federal, state, foundations and local funds
- is designed for ultimate availability to all school systems.

STATISTICS

Official Title:
Ref: OEG-O-080154-3677 (085) Coordination of Organic Curriculum Development in the Public Schools of Quincy, Massachusetts.

Source of Funding:
Federal (Initial)

Budget:
1967
1968 $23,404.
1969-70 $24,983.

Staffing:
1 Coordinator (full time)

Pupil Population:
2263-Quincy High Designated ES-70 School

Materials:
None

References:
Dr. Lawrence P. Creedon
Superintendent of Schools
Quincy Public Schools

Stewart Sargent
ES-70 Coordinator
Quincy Public Schools

Beginning:
May 1967

Ending:
Continued

by diagnosing "learning styles" specialists assure that educationally deprived children will receive remedial help.

Heirs to a changing America, our children need an education that meets the times. Aware that your Quincy Public Schools must respond to this need we have made operational several important programs that serve to vitalize the curricula. This sheet, part of a continuing series, summarizes one particular activity called . . .

Project: DARE

Introduction

All young children stepping into school enter a world of words – for words form our basic means of communication. As a consequence, teachers must assume their students have already learned the meanings of language used in ordinary conversation. Most children have. They come to school with a satisfactory vocabulary and continue to develop a high degree of confidence in their ability to cope with this verbalized classroom situation. Their success in doing so decides in great measure how they meet the challenge of getting an education.

Certain young children, however, have not had comparable opportunities to develop a basic facility with language and with related perceptual skills. Consequently, they are overwhelmed by the flood of new sounds, sights, and meanings. Experience has shown that with this kind of handicap these children will not do well with school work. What they need most are enrichment experiences that grow out of organized play, games, puzzles, books, etc., for in aggregate these experiences serve to develop fundamental perceptual understandings and offer exposure to language that will provide a framework upon which they can construct an acceptable pattern of language behavior.

Project DARE (Diagnostic and Remedial Education) is an effort to give this particular type of handicapped child a better chance. It provides, through federal funds, "Financial Assistance to Local Education Agencies for the Education of Children of Low Income Families". This includes special programs for educationally deprived children in attendance districts where these families are concentrated. DARE seeks to help public school children in Snug Harbor, Great Hill, Daniel Webster, John Hancock and non-public school children in St. John's, St. Joseph's, and St. Mary's- in Kindergarten through Grade 3.

How is DARE implemented?

The function and prime purpose of the project staff is to find those children who seem destined for academic failure and provide them an appropriate remediation. To this end an extensive program of testing is used to diagnose learning styles and establish ability in areas of perception and language for teachers must know relative weaknesses and strengths in order to provide meaningful learning experiences. Children with *perceptual distortions* (who have visual difficulty in differentiating similar letter forms) or *poor auditory recall* (who find it difficult to differentiate specific spoken sounds) cannot be expected to read, write and talk in the same way as children without these handicaps.

The DARE staff meets with classroom teachers every week to share information and to construct custom tailored guidelines to help each of the recipient children continue their improvement. They also work with individuals, small groups, and entire classes. Detailed evaluation reports and "in-depth" testing is continously peformed to record progress.

Who are the task force people?

Five *helping reading teachers* provide daily remedial work for youngsters to whom the regular reading program is unsuited. They work with classroom teachers demonstrating their special techniques and sharing with them new approaches to learning that may seem best for a particular child.

Two *language therapists* concentrate

on the development of oral communication skills (effective conversation) for children who need this special help. They seek to stretch and expand vocabulary, bring about an improvement in language usage, teach children how to sharpen their listening skills, and provide experiences which seek to improve memory.

Four part-time *guidance* and *adjustment workers* are used to assist children who have obvious difficulties in coming to terms with school. They also form a very important link between a child's home, his school, and the project staff.

If a child demonstrates inadequate coordination the *physical educator* outlines a developmental program that will bring about improved skills in areas of motor control, spatial orientation, and eye-hand coordination.

Eleven *resource team aides* assist the physical educator, the language therapist and the helping reading teacher to carry out each daily program. Their work is described and supervised by the project staff.

A *Project Coordinator* and *Board of Directors* (made up of school principals), Director of Pupil Personnel Services, and Executive Director of the Quincy Community Action Program provide the administrative leadership.

How is the program evaluated?

Selection of pupils is based on the results of the following tests and evaluative procedures:

- Teacher Recommendation
- Murphy-Durrell Reading Readiness Analysis
- Slingerland Tests for Identifying Children with Specific Language Disability
- Wepman Test of Auditory Discrimination
- Purdue Perceptual-Motor Survey
- Illinois Test of Psycho-Linguistic Abilities

Recommendations

Based upon practical experience these observations appear to merit consideration–

Early diagnosis of young children who are potential high risk academic failures can be achieved and with sufficient early intervention this tendency can be reversed

Para-professionals (sophisticated amateurs), when trained to help children develop coordination and language skills, have a significant role in early remediation.

Built-in time for conferences between special service personnel and regular classroom teachers tends to create an improved learning climate for children who have a learning disability.

STATISTICS

Official Title:
A Team Approach to the Diagnosis and Correction of Language Learning Disabilities.

Source of Funding:
Elementary/Secondary Act 1965
Title I, Public Law 89-10

Budget:
1968-1969 – $138,085

Pupil Population:
500

Target Schools:
(Public)
Snug Harbor
Great Hill
Daniel Webster
John Hancock
(Non-Public)
St. John's
St. Joseph's
St. Mary's

Materials:
Overhead Projector
"Primary" Typewriter
Language Master
Film Strip Projector
Tape Recorder
Record Player
Frostig Materials
Peabody Language Kits
Controlled Reader
Dolch Materials
Speech to Print Phonics Kit
SRA Reading Laboratory
Merrill Linguistic Readers
Balance Beam
Physical Aptitude Equipment

References:
Dr. Lawrence P. Creedon
Superintendent of Schools
Quincy Public Schools

Marie T. Mulkern, Coordinator
Project DARE
Quincy Public Schools

Journal of Learning Disabilities, The Professional Press, Inc., 5 North Wabash Avenue, Chicago, Illinois 60602

Learning Disorders (I, II, III), Special Child Publications, 71 Columbia Street, Seattle, Washington 98104

Time:

Beginning: September 1968
Ending: Continuing

An entirely new kind of science program - laboratory oriented - and sequenced to accomodate each student's ability - is now offered to the seventh and eighth grades.

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INTERMEDIATE SCIENCE CURRICULUM STUDY

ISCS

Why is this new curriculum needed?

The Junior High School science program is generally regarded by science educators as the "weak link" between the newly improved elementary school science curricula and the new programs which serve to revitalize the science program at the high school level. Traditional seventh and eighth grade programs have been primarily textbook oriented with instruction paced to the class as a whole rather than by the competency or interest of an individual student. The "ISCS" approach tries to provide a stimulating, laboratory-centered series of experiments and procedures that requires the student to become more "involved" in the "process" of learning as he discovers (for himself) how or why something reacts under given conditions.

How was the program devised?

It was started at Florida State University in 1966 as an instructional research project supported by the U.S. Office of Education.

The basic objective was to develop a comprehensive science program for grades seven through nine — "that would be based on good learning theory, consistent with modern science, and which would provide a vehicle whereby recent advances in pedagogical technique could be assimilated into existing school settings".

The initial draft was made by a permanent project staff. On the science side, the group included ten chemists, nine physicists, and five biologists. There were five science education specialists, six junior high school science teachers, an educational research specialist, and two test item writers. In addition to the writers and evaluators, the group included four illustrators, two editors, eight typists, two computer programmers, and even six junior high school students (they tested preliminary materials). This group together with a large advisory committee of college and public school educators submitted their work to some eleven field trials in 1967. The purpose of this was to (1) determine the adequacy of the materials developed and (2) provide sufficient statistical data for evaluation purposes. Preliminary control testing during the 1966-67 school year was conducted in Illinois. In 1967-68, following revision of the materials, twelve "Field Trial Centers" were established across the country.

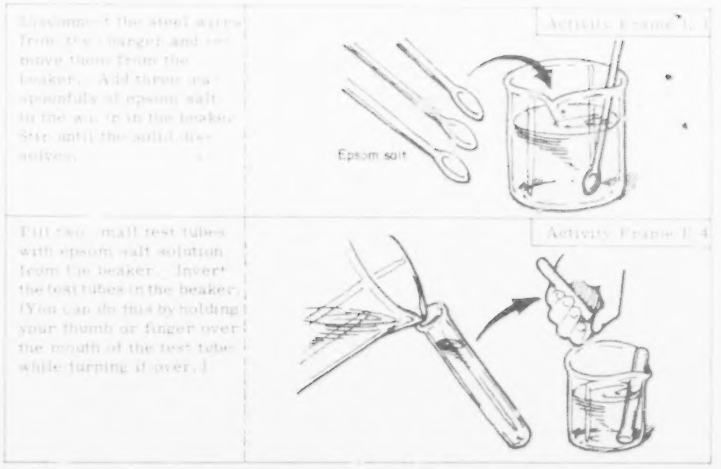
The revision of materials which followed these trials was then committed to print and made available to interested progressive school systems across the country. In keeping with the commitment of the Quincy Public Schools to provide curriculum relevant for today's youth — and which provides for "individualization" of content that it might fit the needs, interests, and abilities of each student — we are now part of the ISCS project.

What are the materials?

Each student is given a self-paced, activity-oriented, text that provides for "sequential" learning. Cartoons, diagrams, simplistic illustrations, attractively mixed with paragraphs of text, have been devised with student interest and motivation in mind. The materials for grade seven are published in two separate books,

one containing the basic sequence and the other consisting of "excursions". Each student is expected to carry out all the activities in the basic sequence, and, at intervals, he is channeled to the "excursion" book for needed remedial work or for the extension of concepts or processes developed in the basic sequence. The content flows through grade levels from simple to complex and from concrete to the abstract. The early portion of grade seven deals with simple "physics-oriented" activities in which the student can handle many objects and can easily interpret what he sees. The end of grade seven and the beginning of grade eight have a "chemical orientation" that calls for him to think in terms of "particles" -- particles that he can neither see nor feel. At the end of grade eight the student is asked to interpret the more complex "phenomenological characteristics" of biological science. Earth science and biological science are projected for grade nine.

In addition to the student materials, each course "package" contains a teacher's manual, achievement tests, suggested items for teacher-made tests and a collection of open-ended, end-of-chapter tests.


Activity Frame G-3
Disconnect the steel wires from the charger and remove them from the beaker. Add three or four spoonfuls of epsom salt to the water in the beaker. Stir until the solid dissolves.
Epsom salt
Activity Frame G-4
Fill two small test tubes with epsom salt solution from the beaker. Insert the test tubes in the beaker. (You can do this by holding your thumb or finger over the mouth of the test tube while turning it over.)

Is the ninth grade provided for?

Yes! Dr. John Jablonski, Associate Professor of Science at Boston University, is the director of the local project and will assume the instruction of teachers in newly devised ninth grade materials.

How are teachers acquainted with the new curriculum?

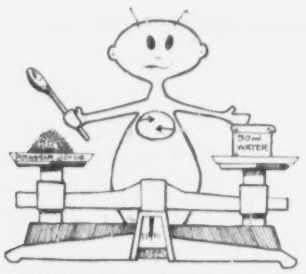
Each Junior High science teacher involved with ISCS in Quincy has attended a six-week workshop during the summer and will attend as well thirty "in-service" sessions during the school year. In the summer session the teachers work through actual class exercises, observe student groups doing the same, take part in group discussions to criticize and revise the program, and listen to guest lecturers.

During the year teachers will continue to work through the new exercises at each grade level. In this way, each teacher will eventually have worked through the entire program, enabling him to see the "total picture".

Recommendations

Quincy will continue its involvement with the ISCS program through the 1970-71 academic year. By this time we hope all interested teachers will have had a chance for in-service training with ISCS materials.

An on-going appraisal by participating teachers will determine to what extent this program will be adopted in the Quincy schools.



● E.6. If you carried out the above method, how many milliliters of solution would be in each test tube?_____

● E.7. How many grams of dissolved potassium iodide would be in each test tube?_____

STATISTICS

Title
Intermediate Science Curriculum Study

Source of Funding
National Science Foundation

Budget
1969-70: $50,604
Quincy Funding $10,000

Pupil Population
1969-70: 1,200

Staffing
1 Director
1 Associate Director
2 Instructors
1 Secretary

Materials
Commercial

References

Dr. Lawrence P. Creedon
Superintendent of Schools
Quincy Public Schools
Quincy, Massachusetts 02169

Dr. John R. Jablonski, Director
Eastern Nazarene College
Wollaston, Massachusetts 02170

Mr. Stewart P. Darrow, ISCS
Florida State University
Tallahassee, Florida

Mr. Vincent P. Sullivan, Jr.
Coordinator of Science
Quincy Public Schools
Quincy, Massachusetts 02169

Beginning September, 1968
Ending: Continuing

APPENDIX VI

ES '70 PAST AND PROLOGUE

PAST AND PROLOGUE

Superintendent Lawrence P. Creedon points out that the Quincy Public School System is committed to a "Learner Responsive School System" as evidenced by its thrust in developing some 30 programs indicated in its Curriculum Fliers distributed throughout the ES '70 Network. Major efforts over the last five years have been in the development of two Projects - ABLE and PLAN.

ABLE funded under the United States Office of Education and affiliated with AIR (American Institute of Research) developed and implemented individualized programs for non college bound students in eleven vocational technical job clusters. The Executive Director of the Great Cities Council has proposed that Quincy Public Schools be assigned the task of coordinating the Management Information System for the Council's effort that is currently being proposed consistent with the ABLE Model.

PLAN, Program for Learning in Accordance with Needs, founded by Westinghouse Learning Corporation, and affiliated with AIR, has attempted to develop and implement a Computer Managed Individualized K-12 program.

Creedon states that as a result of these efforts we need a vehicle to "put it all together". He envisions a major committment to enable a school district or districts such as the ES '70 Network be funded to continue to develop and implement new ventures in Individualized Learning Programs and at the same time the development and implementation of a management information system that not only will support and facilitate the educational program, but will meet all the requirements of reliability, predictability and accountability.

Quincy has recognized the need for involvement and operates on the premise that anyone who is to be affected by a decision ought to be involved in the process of making that decision. A vehicle for decision making has evolved that is based upon participation in a team structure keyed to competence which has four components or levels; ETT (Expanded Task Team), IPT (Instructional Planning Team), LMT (Learning Management Team) and ST (Superintendency Team).

Lloyd Creighton, Principal of Quincy High School and Chairmen of the ES '70 Principals group, is enthusiastic about "rap" sessions with students from the two high schools and the administration on a regular basis. These weekly sessions deal with student grievances before they fester. A recent outcome form these "rap" sessions was the institution of Open Campus in the high schools.

The ES '70 Coordinator, Stewart S. Sargent commented that part of his responsibility is membership of the R & D Committee. In the past two years close to 50 R & D proposals have been developed by staff members and submitted for local funding. The 1971 budget contains over $125,000. for continued effort in R & D. In view of the size of the Quincy Public Schools (17,000 students). This is a major contribution and indication of the city's commitment to the goals of ES '70.

Sargent also noted that Quincy was the first school district in Massachusetts to create a Compensatory Education Board for community, parent and student envolvement now required by Title I of P.L. 91-230.

Creedon is hopeful that the ES '70 Network will expand its envolvement to include K-14 programs for a Learner Responsive School System.